

Indiana Agriculture - It All Starts With the Land!



State of Indiana
Office of the Commissioner of
Agriculture

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Governor and Commissioner

A Profile of Indiana's Agricultural Industry 2004-2005

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Youth leadership development has always been at the forefront of agriculture

2004 is a year of celebration for Indiana agriculture – as reflected on the cover of this publication. Two of our country's best youth leadership development programs, 4-H and FFA, are observing significant anniversaries.

The animated fat cat *Garfield*, astronaut Jerry Ross and thousands of participating youth and adult leaders will honor 100 years of 4-H in Indiana. 4-H teaches life skills, decision-making, personal responsibility, character development and leadership to Indiana youth in the third through 12th grades.

What started as a program for farm youth has moved to rural and urban communities across the state. In fact, about 50% of Indiana 4-H'ers come from cities and towns. Thirteen percent of 4-H youth are racial and ethnic minorities.

As the largest youth organization in the state, 4-H calls 303,000 of Indiana's young people members. This membership represents youth from cities and suburbs (50%), rural areas and small towns (30%) and from Hoosier farms (20%). The 4-H program is available in all 92 Indiana counties through the Purdue University Cooperative Extension

Service. It is guided by 18,000 volunteer adult mentors/leaders.

There are still the traditional 4-H livestock clubs—there's even a program that allows urban 4-H members to lease farm animals. And the organization has a variety of projects and programs to help youth from all communities learn life skills and acquire knowledge. 4-H provides a service-learning environment where children learn to communicate more effectively and are motivated to make a difference. Some 4-H programs take young people on their first steps as they explore what could be

their future career.

The 4-H creed is based on the organization's logo—a four-leaved clover with an "H" in each leaf. The creed reads: *To pledge your head to clearer thinking, your heart to greater loyalty, your hands to larger service, and your health to better living.*

Another outstanding Indiana youth leadership program is the FFA. Seventy-five years ago, 33 farm boys from Kansas founded the National FFA (formerly known as the Future Farmers of America). Today, the Indiana FFA encompasses 8,500 members



statewide and is the student organization component of Indiana's Agricultural Education Program. An intracurricular school activity, FFA empowers students to apply the knowledge and competencies gained from classroom/laboratory instruction and supervised agricultural experiences. The FFA motto *Learning to do, doing to learn, earning to live, living to serve* gives purpose to students who take an active role in succeeding in agricultural education.

The Indiana FFA promotes citizenship, volunteerism, patriotism and cooperation among its 185 Indiana chapters who join 450,000 members in the U.S. and the more than four million Americans who have been members over the past 75 years. The 75th anniversary theme is "Celebrating A Proud Past and A Promising Future!"

Indiana's FFA membership profile consists of students from



urban, farm and suburban areas each representing approximately 33% of the organization's members. The Indiana FFA and agricultural education provide a strong foundation for the youth of our state and the future of the food, fiber and natural resource systems for Hoosiers statewide.



Lt. Governor
Kathy Davis

The Indiana FFA nurtures the next generation of Hoosier agriculturalists who will be involved in the leadership of every facet of our agricultural

industry including food safety, research, protection, sales and marketing, food production and processing, international trade and education. The organization promotes premier leadership, personal growth and career success among its members and assists students in discovering the power they possess.

For the greatest part of the 20th century, 4-H and FFA empowered youth to reach their full potential, and the tradition is ongoing. Now, in the 21st century, these youth leadership programs continue to help our young people become competent, confident, caring, knowledgeable and contributing citizens.

Congratulations to 4-H and FFA! As Indiana's commissioner of agriculture, I look forward to working with your members, adult leaders, educators and alumni as we build a strong Hoosier agriculture industry.

Lt. Governor Kathy Davis
Commissioner of Agriculture

An Agricultural Perspective

U.S. agriculture is a complex system that produces an unprecedented abundance of food and fiber. Can the United States continue to have the most plentiful and the safest food system in the world? This question and the unfolding answer will impact us for generations to come. What we know is this:



- The U.S. farmer is the most productive in the history of the world.
- Food is more affordable in the United States than in any other developed country in the world.
- There is a definite trend toward fewer farms producing an increasing share of agricultural products in this country. However, nationally, individuals or families own 90% of U.S. farms. Here in Indiana, individuals or families own 95% of farms. **Source: 2002 U.S. Ag Census**
- In spite of many challenges, U.S. agriculture is uniquely positioned to provide for the food and fiber needs of a growing world community.
- U.S. farmers account for:
 - 42.7% of the world's soybean production, and
 - 34.4% of the world's corn production.
- Nationally, more than 15% of the U.S. population is employed in farm or farm-related jobs including production agriculture, farm inputs, processing and marketing, and wholesale and retail sales.

The agribusiness sector, which provides production agriculture with necessary inputs and which adds value to farm products, continues to thrive. The economic impact of agribusiness is huge. This food and fiber sector accounts for about one-eighth of the U.S. gross domestic product (\$1.26 trillion in 2000) and employs just over one-sixth of the U.S. civilian labor force (13% or 24.1 million workers). **Source: U.S. Environmental Protection Agency.**

Here in Indiana, agriculture accounted for \$2.3 billion of Indiana's gross state product (GSP) in 2000. While Indiana's GSP is concentrated in manufacturing, retail and service industries, agriculture's share is an important and changing component of the state economy. Agriculture is an important source of income and employment, especially in rural areas. The food processing industry sector contributed \$2.7 billion to Indiana GSP in 2000 and employed over 32,000 workers with an average wage of \$33,000. **Source: Purdue University Department of Agricultural Economics, Sarah A. Low and Kevin T. McNamara.**

This increased agricultural productivity helps keep food prices and the growth of food costs at modest levels. U.S. consumers spend approximately 9% of their income on food compared with:

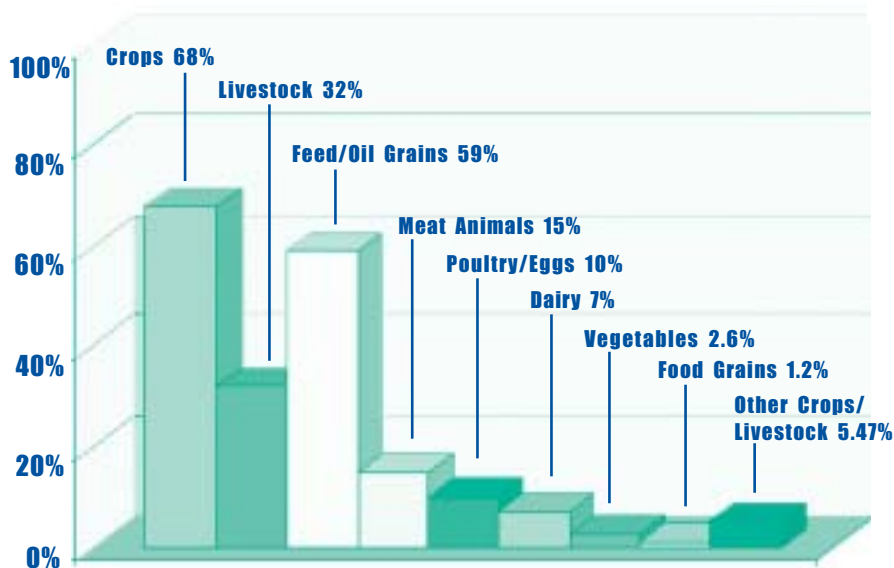
- 11% in the United Kingdom,
- 17% in Japan,
- 27% in South Africa, and
- 53% in India.

Indiana Agriculture at a Glance

The average Indiana farm size for 2003 was 253 acres compared to 244 acres in 2002. The total value of Indiana crops produced in 2003 was \$3.36 billion compared to \$3.25 in 2002 and \$3.29 billion in 2001.

Indiana Agricultural Cash Receipts for 2002

Total cash receipts from agriculture were \$4.8 billion for 2002 compared to \$5.2 billion in 2001. Crops accounted for 68% of sales, and livestock for 32%. Feed and oil grains accounted for 59% of farm cash receipts with corn sales at \$1.51 billion and soybean sales at \$1.26 billion. Meat animals followed with \$726 million in sales (15%), poultry and eggs with \$476 million in sales (10%), and dairy had \$317 million in sales (7%). Other commodity groups make up the remaining 9% of agricultural sales and include: vegetables (2.6%), food grains (1.2%), and other crops and livestock (5.47%).



Source: Indiana Agricultural Statistics Service

Indiana Production Statistics

Based on 2003 Crop Production, Livestock Inventories and Livestock Products (unless otherwise indicated)

Rank	Commodity	Quantity	% of U.S. Production
13 th	Number of Farms	59,500	2.8
20 th	Acres of Land in Farms	15.0 million acres	1.6
	15 million acres out of Indiana's total land area of 23.2 million acres		
1 st	Ducks (2002 Ag Census)	1,143,160	29.9
2 nd	Egg-Type Chicks Hatched	58,214,000	14.0
2 nd	Popcorn	267,300,000 lbs.	23.3
2 nd	Ice Cream Production	86,970,000 gal.	9.8
2 nd	Tomatoes for Processing	202,290 tons	2.1
4 th	Soybeans	203,300,000 bu.	8.4
4 th	Total Eggs Produced	6,035,000,000	6.9
4 th	Peppermint	495,000 lbs.	7.1
5 th	Corn for Grain	786,940,000 bu.	7.8
5 th	All Hogs	3,100,000	5.2
5 th	Cantaloupes	28,000 tons	2.5
5 th	Chickens (excl. broilers)	28,865,000	6.4
5 th	Spearmint	76,000 lbs.	4.3
5 th	Watermelons	129,500 tons	6.7
7 th	Snap Beans for Processing	17,340 tons	2.4
8 th	Blueberries	2,600,000 lbs.	1.4
8 th	Turkeys Raised	12,800,000	4.7
8 th	Pig Crop	5,252,000	5.2
9 th	Cucumbers for Processing	10,100 tons	1.6
9 th	Tobacco	8,400,000 lbs.	1.0
14 th	Commercial Apples	51,000,000 lbs.	0.6
14 th	Milk Production	2,944,000,000 lbs.	1.7
15 th	Tomatoes for Fresh Market	12,400 tons	0.8
15 th	Milk Cows (Jan. 2004)	143,000	1.6
15 th	Winter Wheat	29,670,000 bu.	1.7
17 th	Sweet Corn	18,600 tons	1.3
18 th	Cattle on Feed (Jan. 2004)	105,000	0.8
24 th	Oats	1,050,000 bu.	0.7
25 th	Freestone Peaches	3,400,000 lbs.	0.2
27 th	Lamb Crop	40,000	1.0
27 th	Wool Production	270,000 lbs.	0.7
27 th	Potatoes	46,250 tons	0.2
28 th	Sheep and Lambs (Jan. 2004)	45,000	0.7
29 th	All Hay	2,110,000 tons	1.3
33 rd	Beef Cows (Jan. 2004)	227,000	0.7
35 th	Calf Crop	340,000	0.9
36 th	Honey Production	280,000 lbs.	0.2
36 th	Cattle & Calves (Jan. 2004)	830,000	0.9

Source: Indiana Agricultural Statistics Service

Indiana's \$\$ Value of Agriculture Production

Based on 2003 Production Statistics

Rank	Commodity	\$ Value	% of U.S. Production
2 nd	Tomatoes for Processing	\$17.6 million	3.1
2 nd	Popcorn	\$31 million	not available
4 th	Soybeans	\$1.5 billion	8.6
4 th	Peppermint	\$5.5 million	6.6
5 th	Corn	\$1.97 billion	7.9
5 th	Cantaloupe	\$10.5 million	2.8
5 th	Spearmint	\$752,000	4.5
6 th	Hogs	\$560 million	5.8
6 th	Watermelons	\$24.3 million	7.0
7 th	Snap Beans for Processing	\$2.9 million	2.6
7 th	Eggs	\$308 million	7.1
8 th	Turkeys	\$139 million	5.1
8 th	Blueberries	\$2.87 million	1.3
9 th	Cucumbers for Pickles	\$1.89 million	1.1
9 th	Tobacco	\$16.4 million	1.0
11 th	Tomatoes for Fresh Market	\$17.1 million	1.4
14 th	Milk (total value)	\$380 million	1.8
15 th	Sweet Corn for Fresh Market	\$8.8 million	1.6
15 th	Winter Wheat	\$94.9 million	1.7
16 th	Commercial Apples	\$9.3 million	0.5
19 th	Chickens	\$199,000	0.4
22 nd	Oats	\$2.0 million	0.9
23 rd	Peaches	\$2.4 million	0.7
24 th	Floriculture	\$49 million	1.0
27 th	Hay	\$201.7 million	1.6
27 th	Potatoes	\$5.55 million	0.2
29 th	Wool	\$51,000	0.2
30 th	Sheep & Lambs	\$1.7 million	0.4
34 th	Cattle	\$183 million	0.6
36 th	Honey	\$445,000	0.2

Source: Indiana Agricultural Statistics Service

Indiana Topography, Climate and Conservation

Vast flat plains in the northern two thirds of the state characterize Indiana topography. In the unglaciated south, hills, ridges, knolls, caves and waterfalls abound. A few counties in far West Central Indiana also exhibit the southern topography due to their location in the Wabash River bed. Land elevations range from 324 feet above sea level at the mouth of the Wabash River in the southwest corner of the state to 1,257 feet in East Central Indiana.

Soils

The characteristics of Indiana soils are important to farming. The sandy soils of northern counties have a low water holding capacity. Drainage is rapid during rainy periods and flooding is rarely a problem. Some crop irrigation is done in these sandy areas in dry summers.

Rich prairie soils extend over West Central and Central Indiana, often producing the state's highest crop yields. Some of the clays in East Central Indiana are compact with poor drainage and frequent ponding, but crop stress due to lack of rain occurs infrequently.

Much of the land in South Central Indiana has a poor water retention capacity because of the underlying limestone. Such areas need frequent rains to sustain proper growth and development of crops.

Seasons

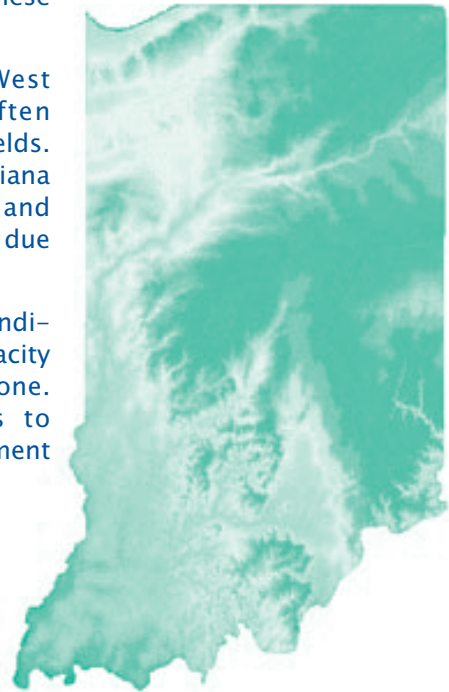
Indiana has an invigorating climate with strongly marked seasons. Winters are cold, and the transition from cold to hot weather can produce an active spring with thunderstorms and tornadoes. Humidity and high temperatures arrive in summer. Autumn is favored by many residents as a pleasant time of the year with lower humidity than the other seasons, and mostly sunny skies.

Local climate influences

Local climate variations within the state are caused by differences of latitude, terrain, soil type and lakes. The effect of Lake Michigan is most pronounced just inland from the shore and diminishes rapidly with distance. Cold air passing over the warmer lake water induces precipitation in the lee (sheltered side) of Lake Michigan in autumn and winter.

Temperature

Air temperatures in Indiana have a wide annual range. January is typically the coldest month of the year with normal daily temperatures ranging from 31 to 38 degrees north to south. July is the warmest month with daily maximums averaging 80 to 83 degrees and minimums of 63 to 65 degrees. Average daily minimum temperatures in



autumn are higher in northwestern Indiana near the warmer lake surface than farther south.

The average date of the last freeze in spring ranges from the second week of April in southwest Indiana to the second week of May in the northeast. The trend of a later date toward the north is reversed in extreme northwestern Indiana, where the average date is about May 1 near Lake Michigan. In autumn the average date of the first temperature of 32 degrees or colder is from September 26 in the extreme northeast to October 26 along the Ohio River in the southwest.

Precipitation

Average annual precipitation ranges from 37 inches in northern Indiana to 47 inches in the south. May is the wettest month of the year with average rainfall between 4 and 5 inches across the state. Autumn months are drier with three inches of rainfall typical in each month. Indiana winters are the driest time of year with less than 3 inches of precipitation commonly received each month.

Protecting Our Soil and Water Resources

With Indiana's soil composition, good soil and water conservation practices are key to a farmer's management plan. Taking care of Indiana's natural resources leads to productive soils, higher yields, better quality crops, and improved pastureland for livestock.

Conservation tillage is one of the farmer's best management tools. It is defined as the practice of reducing soil cultivation to minimize the loss of precious topsoil – or any tillage and planting system that leaves more than 30% of the soil covered with crop residue to prevent erosion. Conservation tillage systems include no-till, ridge-till and mulch-till. No-till is the best for the environment because the soil is left virtually undisturbed from harvest to planting, reducing erosion by 90% or more. In contrast, conventional-tillage leaves less than 15% of the soil covered with residue.



A study by the Conservation Technology Information Center (CTIC) titled, *Conservation Tillage and Plant Biotechnology: How New Technologies Can Improve the Environment by Reducing the Need to Plow*,

indicates no-till crop acres have increased 35% since the advent of biotech crops in 1996 to a total of more than 55 million acres today.

Conservation tillage produces far-reaching benefits to farmers, society and nature. But, as the CTIC report indicates, further adoption of biotechnology is still needed to maximize the utilization of conservation tillage and garner its full environmental benefit. The CTIC report shows that:

- 63% of soybean growers who reduced their tillage since 1996 cited herbicide-tolerant technology as the key factor for doing so.
- Conservation tillage and the Conservation Reserve Program reduce soil erosion caused by water and wind by almost 1 billion tons per year. This is a 30% improvement over the last 24 years when traditional plowing methods were more common.
- The use of conservation tillage resulted in a projected \$3.5 billion savings in sedimentation costs in 2002 by lowering maintenance costs for activities such as dredging rivers, cleaning road ditches and treating drinking water.
- Conservation tillage created better habitat for birds and mammals, which thrive in the protective residue of no-till fields.
- Conservation tillage also saved 306 million gallons of fuel in 2002 by reducing the number of tractor passes needed to control weeds. On average, no-till saves about 3.9 gallons of fuel per acre, according to the study.

For additional information on soil and water conservation practices, contact the following organizations:

- Clean Water Indiana Education Program, (765) 494-8383
- Conservation Technology Information Center, (765) 494-9555
- Council for Biotechnology Information, (202) 467-6565
- Indiana Department of Natural Resources – Division of Soil Conservation, (317) 233-3870
- Purdue Cooperative Extension Service Agronomy Department, (765) 494-4773
- Local Soil and Water Conservation District, (317) 692-7523
- USDA Natural Resources Conservation Service, (317) 290-3200



Indiana Soil and Water Conservation Districts

Each county in Indiana has a Soil and Water Conservation District (SWCD). SWCDs are subdivisions of state government led by a five-

member board of supervisors. They determine and address natural resource needs in their counties including issues such as agricultural and urban conservation, forestry, wildlife, water management, land use and natural resource education.



The Indiana Association of Soil and Water Conservation Districts (IASWCD) assists the leadership of local SWCDs through coordination and education programs on the wise use and management of Indiana's natural resources.

The IASWCD builds partnerships with local, state and federal government agencies and organizations that provide conservation resources. It coordinates educational and training opportunities for SWCD supervisors, employees and Indiana Conservation Partnership staff.

For more information about Indiana's SWCDs or the IASWCD, contact the association at (317) 692-7523 or visit the IASWCD Web site at www.iaswcd.org.

The Indiana River Friendly Farmer Program

The IASWCD, Clean Water Indiana, Indiana Farm Bureau Inc., IDNR-Division of Soil Conservation, Purdue Cooperative Extension Service, USDA Natural Resources Conservation Service, and the Office of the Commissioner of Agriculture jointly sponsor Indiana's River Friendly Farmer Program (RFF).

The program publicly recognizes and rewards farmers who manage their farms in an economically and environmentally sound way to protect and improve the state's soil and water resources. Additionally, the program informs the non-farm public of positive contributions farmers make to protect and improve soil, water and related natural resources. For more information about Indiana's RFF program contact the IASWCD at (317) 692-7523 or visit the RFF Web site at www.iaswcd.org/programs_rff.htm.

Agricultural Exports

Indiana's share of U.S. agricultural exports (goods shipped to other countries) was \$1.70 billion in 2002 compared to \$1.53 billion for 2001 (up from 1.40 billion in 2000). This includes \$1.26 billion for corn and soybean products, and \$206.1 million for live animals, meat, poultry and products. Indiana is the 10th largest exporting state for agricultural products.

Indiana's Top 5 agriculture commodities, 2002

Commodity	Value of receipts thousand \$	% of state total farm receipts	% of U.S. value
1. Corn	1,505,854	31.4	8.6
2. Soybeans	1,261,808	26.3	9.4
3. Hogs	519,589	10.8	5.4
4. Dairy products	317,340	6.6	1.5
5. Chicken eggs	238,422	5.0	5.6
6. All commodities	4,799,545		

Source: USDA Economic Research Service

According to the U.S. Department of Agriculture (USDA), ag exports solidly strengthen farm income and support almost 900,000 U.S. jobs of which 40% are in rural areas. Every additional billion dollars in exports supports another 15,000 jobs on farms facilitating trade in processing and manufacturing, and transporting commodities and food products.

Indiana's Rank in U.S. Agriculture

Foreign Exports Based on 2002 Cash Receipts

Rank	Product	Dollars	% of U.S. Exports
10 th	All Commodities	\$1.70 billion	2.7
3 rd	Soybeans & Products	\$694.2 million	9.5
4 th	Feed Grains & Products	\$569.9 million	8.4
7 th	Poultry & Products	\$82.8 million	3.6
9 th	Seeds	\$28 million	3.3
12 th	Tobacco (Unmanufactured)	\$10.4 million	0.9
13 th	Live Animals & Meat	\$123.3 million	2.0 (excluding poultry)
15 th	Dairy Products	\$13.3 million	1.3
19 th	Fats, Oils & Greases	\$2.7 million	0.6
20 th	Fruit & Prepared Fruits	\$5.2 million	0.2
21 st	Wheat & Products	\$81.4 million	1.7
23 rd	Feed & Fodder	\$24.5 million	1.3
24 th	Hides & Skins	\$2.3 million	0.1
31 st	Vegetables & Prepared Vegetables	\$5.9 million	0.1

Source: Indiana Agricultural Statistics Service

Top 15 U.S. Agricultural Export Destinations for 2003

1. Canada	9. Egypt
2. Japan	10. Indonesia
3. Mexico	11. Turkey
4. European Union	12. Thailand
5. China (Mainland)	13. Philippines
6. South Korea	14. Australia
7. China (Taiwan)	15. Russia
8. Hong Kong	

Source: USDA Economic Research Service

Agricultural Transportation

Indiana's transportation network supports and enhances rural economic development, rural life and mobility. It ensures the efficient movement of agricultural products on the state's highways, rail systems, waterways and air to national and global markets while maintaining the global competitiveness of Hoosier agriculture.

Indiana farmers can easily transport commodities using the seven interstate highways, extensive rail lines, more than 500 airport facilities or one of the state's three modern shipping ports. Indiana's location provides an advantage to the Hoosier food processing industry by being located within one day's drive of 65% of U.S. markets and three major Canadian cities.

Indiana's Ports

The Ports of Indiana operates a statewide system of three ports on Lake Michigan and the Ohio River. The ports' operating budget is generated from leases, dock fees and Foreign-Trade Zone licensing.

More than 70 million tons of cargo moves in and out of Indiana by water. As a state, Indiana ranks 14th in the country for waterborne tonnage. The ports handle over 6 million tons per year—approximately 2 million tons per port. The main cargos moving through the Ports of Indiana are steel, grain, coal, fertilizer, limestone, paper, containers, salt, cement and heavy lift equipment.



The existence of the three public ports in Indiana allows Hoosier farmers to pay substantially less to ship their products to domestic and international markets.

The Port of Indiana–Burns Harbor on Lake Michigan is a deepwater port serving the grain, steel and heavy industrial segments of Indiana's economy. Goods shipped through this port depart through the Great Lakes/St. Lawrence Seaway. The Port of Indiana–Southwind at Mount Vernon and the Port of Indiana–Clark at Jeffersonville, both on the Ohio River, are gateways to the nation's inland waterway system.

Commodity Information — Crops

Corn

Indiana ranks 5th in the U.S. in the production of corn-for-grain. In 2003, Hoosier farmers harvested 786.9 million bushels, 25% above 2002's 631.6 million bushels, but 11% below the record high of 884.5 million bushels produced in 2001. The 2003 crop was valued at \$1.97 billion. Corn acreage harvested for grain totaled 5.39 million acres, up 3% from 2002. The 2003 average yield of 146 bushels per acre was up 25 bushels above the 121 bushels per acre produced in 2002.

Benton County was the top corn-producing county for Indiana in 2003 in number of bushels, 19.4 million, and the highest county average yield for the state at 164 bushels per acre.



The U.S. Corn Belt includes the states of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota and Wisconsin. The majority of corn grown in the U.S. is “dent” corn used for everything from livestock feed to corn syrup, sweeteners, ethanol and industrial products. Other major classifications of corn include: sweet corn, which is grown almost exclusively for human consumption, and value-enhanced corn grown to provide specific traits or characteristics such as higher oil, starch or nutrition content.

Corn products are rapidly replacing petroleum in many industrial applications. Polylactide (PLA), a biodegradable polymer made from corn, is being used successfully in the manufacturing of a wide variety of everyday items such as clothing, packaging, carpeting, recreational equipment and food utensils. Because these products are biodegradable and made from a renewable resource, they offer tremendous environmental benefits.

Floriculture

Floriculture is the growing and marketing of flowers and ornamental plants, as well as flower arranging. It is largely composed of the greenhouse industry because flowers and potted plants are produced mainly in enclosed structures in temperature-controlled climates. Many flowers, however, also are cultivated outdoors. Both the production of bedding plants and the production of cuttings (foliage plants) to be grown in greenhouses or for indoor use are considered part of floriculture.

Indiana ranks 24th in the nation in the wholesale value of reported floriculture crops. The value of production for 2003 was \$49 million, which is 1.0% of the nation's total. Indiana has 321 commercial floriculture producers, over eight million square feet of greenhouse production area and over 220 acres of outdoor floriculture production area.

Forest Products

Forests in Indiana cover 4.4 million out of 23.2 million total acres. Indiana's forestland base has expanded by about 430,000 acres since 1967. Almost 150,000 different private landowners own 85% of the forestland in the state.

Indiana's forests are among the most productive in the central hardwood region. Timber growth exceeds removals and mortality by 2.5 times (this includes insects and disease as well as fire, drought and natural mortality). Over 250 million board feet are harvested from forestlands annually. This is an indication of the high productivity and potential of Hoosier soils and trees.

Global hardwood manufacturing provides \$3.5 billion in value-added products and \$7.9 billion in value of shipments to Indiana's economy. The forest products industry ranks the 5th largest in Indiana for manufacturing and employs nearly 60,000 people. The primary products derived from the forest are lumber and veneer.

Fruits and Nuts

Nationally, Indiana ranked 16th in 2003 in the value of production for commercial apples, generating \$9.3 million for the state's economy. Golden and Red Delicious, Jonathan and Gala are just a few of the apple varieties grown in Indiana. In 2003, apple growers produced 51 million pounds of commercial apples on 4,000 acres of land.

Indiana produced 2.6 million pounds of blueberries in 2003, placing the state 8th in the U.S. in blueberry production and 8th in value at \$2.87 million. The state's blueberry industry markets about 80% of the crop to the fresh market as u-pick and ready-picked. The remaining 20% goes to the processed market. Nationally, about 300 million pounds of blueberries travel from U.S. farms to millions of tables across the nation and around the world each year.



In 2003, Indiana farmers produced 3.4 million pounds of Freestone peaches on 650 acres of land located primarily in the southern part of the state. This ranks the state 25th in the U.S. for peach production for 2003, valued at \$2.4 million.

Strawberries are typically planted on less than five acres of land. With approximately 472 total acres planted across Indiana, strawberry acreage has declined in recent years. The fruit, however, continues to be a favorite seller at roadside stands, u-pick farms and farmers' markets. Red and black raspberries are grown throughout Indiana. Blackberries are grown primarily in the southern half of the state.

On average, Indiana produces two million pounds of black walnuts annually. Indiana is the 3rd largest producer of the eastern black walnut. The black walnut is the most valuable individual tree in Indiana based solely on the dollar value of the wood produced. This is primarily due to the very high value of walnut veneer; but considerable value also exists in walnut saw timber, in addition to the production of nuts.

Honey

Honey is the most natural sweetener in the world. It is found in a variety of foods, pharmaceuticals and cosmetics. Here in Indiana, approximately 280,000 pounds of honey was harvested in 2003. The value of this natural sweetener totaled \$445,000.

The color and flavor of honey differs depending on the bees' nectar source (the blossoms). In fact, there are more than 300 unique kinds of honey in the United States, originating from such diverse floral sources as clover, eucalyptus and orange blossom.



Landscape Horticulture

Indiana ranks 6th in lawn and garden retail sales nationally at \$3.46 billion in 2003. There were 3,774 licensed nursery dealers in Indiana in 2003. The nursery and landscape industry is made up of thousands of small family businesses that grow, retail, install and care for plants and landscapes.

Popcorn

Indiana farmers harvested 267.3 million pounds of popcorn in 2003 on 75,000 acres. This is an increase of 42 million pounds over production in 2002 (225 million pounds). The dollar value for the 2003 crop was \$31 million. Indiana ranks 2nd in the nation in popcorn production.

Popcorn, unlike field dent corn, is a type of flint corn (very hard) grown to maturity in the field. By comparison, sweet corn is harvested halfway through the grain fill period. Popcorn can be grown in all regions of Indiana, though much of it is grown in the northern one-third of the state.

Soybeans

Indiana's soybean production was 203.3 million bushels for 2003, down 15% from the 239.5 million bushels harvested in 2002. The value



of the 2003 soybean crop was \$1.5 billion. 2003 production was down 26% from the record high of 273.9 million bushels set in 2001. The average yield of 38 bushels per acre was 3.5 bushels lower than the 2002 average yield of 41.5. This places Indiana 4th in the U.S. for the production of soybeans with 8.4% of total U.S. production.

Rush County was the state's top soybean-producing county in 2003 with 4.38 million bushels, and the county also had the highest average county yield for soybeans with an average bushel per acre yield of 46.

The versatile soybean also is used for soy-based foods, and a variety of non-food products. That's because the meal and oil that comes from the soybean can be utilized for many industrial applications. This includes biodiesel, soy candles, soy ink and road dust suppressant.

Agriculture is the second-largest diesel-using sector in the United States. Only truckers and other on-road diesel users burn more. Federal government statistics show if every farmer and rancher used B2, a blend of 2% soy biodiesel with 98% petroleum, the equivalent of more than 50 million bushels of U.S. soybeans could be utilized annually.

For more information on soybean production and the Indiana Soybean Board, visit their Web site at www.indianasoybeanboard.com, or contact the office at (317) 347-3620.

Vegetables and Other Specialty Crops

Vegetable production in Indiana is a diverse industry. For example, it includes operations specializing in intensive production of high-value micro-greens under cover, as well as operations that produce large fields of cucumbers for processing.

Vegetables, melons and potatoes valued at \$82.8 million are grown on approximately 35,000 acres in Indiana. Dozens of other fruits and vegetables are grown in smaller quantities. Crops are marketed to wholesale buyers, grocery stores and restaurants, and directly to consumers at farm stands and farmers' markets. Recently established wholesale produce auctions are bringing local producers and buyers together to benefit both.

Indiana is home to a productive tomato processing industry. Tomatoes for processing are number one in value and acreage among Indiana vegetable crops, accounting for over \$17.6 million and 8,000 acres in 2003. The state harvested 202,290 tons in 2003 which places Indiana 2nd in the nation for production of tomatoes for processing with 2.1% of the nation's total. Indiana's 12,400 tons of fresh market tomatoes were grown on just 1,700 acres in 2003 and were valued at \$17.1 million.



Indiana's watermelon production ranks 5th in the U.S. and accounted for 6.7% of the nation's total in 2003, representing a value of \$24.3 million. Watermelons were planted on 6,400 acres producing 129,500 tons in 2003. Cantaloupes remain an

important crop for Indiana's produce growers. Indiana ranks 5th in the nation in the production of cantaloupes with 28,000 tons produced in 2003. Indiana farmers raised 2.5% of the national crop on 2,900 acres in 2003. This represents a production value of \$10.5 million for 2003. Watermelon and cantaloupe production is concentrated in the south-western part of the state.

Sweet corn is grown throughout the state. In 2003, 6,000 Indiana acres produced 18,600 tons valued at \$8.8 million, placing the state 17th nationally. Indiana's acreage devoted to snap beans for processing has increased over 40% in the last five years to 6,500 acres in 2003. Indiana ranks 7th in the nation in the production of snap beans for processing with 17,340 tons valued at \$2.9 million grown in 2003.

In 2003, Indiana produced 46,250 tons of potatoes. The 2003 potato crop was valued at \$5.5 million, placing 27th in the U.S. Indiana produced 10,100 tons of cucumbers for processing in 2003 valued at \$1.89 million, placing the state 9th in the U.S. This compares to 3,950 tons grown in 2002.

Peppermint and spearmint for oil is grown on almost 12,000 acres in northern Indiana. The state ranks 4th in the nation in production of

peppermint and 5th in the production of spearmint oils. Peppermint production was up 20% in 2003, while the production of spearmint decreased. In 2003, 495,000 pounds of peppermint oil worth \$5.5 million, and 76,000 pounds of spearmint oil worth \$752,000 were produced.

Indiana ranked 9th in U.S. tobacco production in 2003 growing 8.4 million pounds valued at \$16.4 million. Tobacco production was up 5% from 2002. The average yield was 2,000 pounds per acre.

Wheat, Feed and Forage Crops

Winter wheat production for Indiana was 29.6 million bushels in 2003 placing the state 15th in the U.S. The value of the 2003 crop was \$94.9 million. Indiana's 2004 winter wheat seedings is forecast at 430,000 acres, down 7% from a year ago. Posey County was the top wheat-producing county for Indiana in 2003 with 2.29 million bushels. Posey County also had the highest average county yield per acre with 95 bushels.



Oats, along with corn and hay, are feed and forage crops that provide a major component of the state's livestock diet. In 2003, farmers harvested 1.05 million bushels of oats valued at \$2 million. 2003 production of all hay in Indiana accounted for 2.11 million tons valued at \$201.7 million.

Wine

Indiana was home to one of the first commercially successful vineyards in the U.S. in the early 1800s. The early Indiana grape and wine industry survived disease and severe weather, but Prohibition (1919–1934) ended its progress.

The Small Winery Law, passed in 1971, permitted wineries to sell directly to the public and revived the industry. Indiana's wine and grape industry has expanded in recent years. The number of wineries in Indiana has increased by more than 300% since 1989. There are currently 30 wineries operating in the state with several more in various stages of development.

Indiana wine sales in 2003 totaled 358,071 gallons, which is equal to 1,790,355 bottles of Hoosier wine being sold at wineries or on the retail shelf. Although wine grapes have been grown in Indiana for nearly 200 years, only recently have agriculturalists, vineyard owners

and wine makers worked together to develop consistently good-quality grapes which can thrive in the Midwest. Wine grapes are grown on over 300 acres in Indiana with more being planted each year. Most are grown in the southern half of the state, but commercial vineyards can be found in all regions of Indiana.

Indiana's Wine Grape Market Development Program was established in 1989 and is administered by the Indiana Wine Grape Council. The council's mission is to enhance economic development in Indiana by establishing a successful wine grape industry through research and market development. For more information on Indiana's wine industry, contact the Indiana Wine Grape Council at (800) 832-WINE, or visit the council's Web site at www.indianawines.org.

Commodity Information — Animal Agriculture

Aquaculture

Aquaculture is the production and husbandry of aquatic plants and animals in controlled environments. Aquaculture in Indiana dates back to the late 1800s when a substantial goldfish industry developed in Martinsville. By the end of the 20th century, the industry grew to a product volume of about \$3.5 million.



Aquaculture currently is one of the fastest-growing segments of the U.S. agricultural economy. U.S. aquaculturists produce more than 1 billion pounds of aquatic plants and animals per year. The value of aquaculture production in the U.S. is at or exceeds \$1 billion annually.

According to the National Marine Fisheries Service (NMFS), the average American ate nearly 16 pounds of seafood in 2002, up 7% from the year before. The NMFS predicts that by the year 2020, an additional 1.1 billion pounds of seafood will be needed annually to meet consumers' growing demand. That is why aquaculture is so important. While many fish populations in the world's oceans continue to decline, aquaculture production can provide a source of fish to meet the increasing demand for this food source.

The importance of aquaculture goes beyond putting fish on our dinner plates. In addition to satisfying a hungry market, Indiana can provide a ready supply of corn and soybeans for low cost / high quality fish feed, as well as potential producers receptive to diversifying their existing farm operations.

For more information on aquaculture, contact Charles Felkner, Extension Aquaculture Educator, Purdue University, at (765) 412-2134, or via e-mail at cfelkner@purdue.edu. Web site resources include the Illinois-Indiana Sea Grant at www.iisgcp.org/ and the Indiana Aquaculture Association's Web site located at ag.ansc.purdue.edu/aquanic/iaa/.

Beef Cattle

As of January 2004, there were 830,000 cattle and calves in Indiana, with 19,000 cattle operations and 12,000 beef cow operations. In 2003, the state ranked 36th in livestock inventory for all cattle and calves in the nation. Out of Indiana's 830,000 cattle and calves inventory, beef cows totaled 227,000, cattle on feed totaled 115,000 and the calf crop totaled 340,000. The 2003 value of production for Indiana's beef cattle was \$183 million.

The Five State Beef Initiative is a cooperative effort of Land Grant Universities, State Departments of Agriculture, Cattlemen's Associations, Livestock Marketing Organizations, Farm Bureaus, and post-harvest partners in Illinois, Indiana, Kentucky, Michigan and Ohio. The program's vision is to increase producer profits, and its mission is to strengthen economic opportunities for the Eastern Corn Belt's beef industry by providing added value to the consumer through a responsive production, marketing and information system. The state coordinator is Brian Shuter, Indiana Beef Cattle Association (IBCA), (317) 872-2333.

For more information on the beef cattle industry, contact the IBCA at (317) 872-2333, or visit their Web site at www.indianabeef.org.

Chickens, Eggs and Turkeys

Indiana poultry farms raised 28.8 million chickens in 2003, excluding broilers, placing the state 5th in U.S. production. The value of these chickens was \$40.4 million.



The hatchery business is another area where Indiana leads the nation. Our state ranks 2nd in the production of egg-type chicks, with 58.2 million raised in 2003. There were 6 billion eggs produced by 23 million laying hens in 2003, placing Indiana 4th nationally accounting for 6.9% of

U.S. production. These eggs were valued at \$308 million. Indiana farmers raised 12.8 million turkeys in 2003. The value of production

for these birds was \$139 million, ranking 8th in the U.S. with 4.7% of U.S. production.

The Indiana State Poultry Association (ISPA) represents the state's egg and poultry industries and administers programs of Indiana's Turkey Market Development Council. The council is the official state entity overseeing Indiana's participation in the National Poultry Improvement Plan. The plan supervises flock testing, disease monitoring and hatcheries that produce chicks, poults, waterfowl or hatching eggs for sale to ensure they meet federal guidelines for disease-free status.

For additional information on the Indiana poultry industry, contact the ISPA at (765) 494-8517 or <http://ag.ansc.purdue.edu/ispa/>.

Dairy Cattle

Indiana has 2,400 milk cow operations in the state with approximately 143,000 milk cows (as of Jan. 2004) on these farms. The Hoosier state ranks 14th in the U.S. for milk production with 2.9 billion pounds of milk (355 million gallons) produced in 2003 valued at \$380 million.

Dairy cattle breeds mainly seen in Indiana are: Ayrshire, Brown Swiss, Guernsey, Holstein, Jersey and Milking Shorthorns. The typical cow weighs approximately 1,400 pounds and produces about 60 pounds of milk a day. This amount of milk could produce 2.6 pounds of butter, seven gallons of milk, or six pounds of cheese. All milk-producing cows are females, and they don't produce milk until they have had a calf.



For more information on the Indiana dairy industry, contact Milk Promotion Services of Indiana, Inc., at (317) 842-7133 or on the Web at www.indianadairycouncil.org.

Dairy — Ice Cream

Ice cream is big business in Indiana. In 2003, ice cream production in Indiana ranked 2nd among all states, with a total of 86.9 million gallons (this figure includes ice cream, low fat and nonfat ice cream and sherbet). Indiana produces 9.8% of all ice cream consumed in the U.S.

Ducks

About 22 million ducks are raised annually in the United States. Most are produced on specialized duck farms in a few commercially important duck production areas such as Indiana. Ducks are raised primarily for meat—the commercial duck industry is built around the Pekin

breed (white bird). Pekins, the most popular breed, reach market weight early and are fairly good egg producers. Other meat breeds are Muscovy, Moulard and Mallard.

Indiana produces more ducks than any other state. The St. Joseph River Basin located in northern Indiana leads the world in domestic duck production. The 2002 ag census shows Indiana duck production at 1.143 million animals, or 29.9% of the nation's total. Almost all ducks produced in Indiana are raised inside to protect them from predators and to effectively manage their manure. Ducks are fed corn and soybeans fortified with vitamins and minerals to ensure a balanced diet. The duck industry can raise a market-weight duck in nearly five to six weeks.

Indiana processed ducks are sold primarily to U.S. retail markets such as catering businesses, hotels and restaurants. These businesses purchase whole duckling and duck parts (such as duck legs, roast duckling, marinated and non-marinated ducks).

Horses

The Indiana Horse Council (IHC) and the Indiana Agricultural Statistics Service (IASS) sponsored the first-ever equine survey completed in December 2002.

The results show that Indiana's horse industry encompasses:

- 160,000 horses living on 34,000 operations.
- The value of these horses is more than \$580 million.
- Hoosier horse owners spend approximately:
 - ◆ \$555 million on feed, health care and other necessities,
 - ◆ \$765 million on vehicles such as trucks and trailers, and
 - ◆ \$150 million on tack (saddles, bridles, etc.).
- The value of pastureland on which horses are raised is \$3.1 billion.

The Indiana Equine Survey is online at www.nass.usda.gov/in/equine/equine.htm. For additional information on Indiana's horse industry, contact the Indiana Horse Council at (317) 692-7115 or at www.indianahorsecouncil.org/.

Pork

Indiana pork producers had an inventory of 3.1 million hogs in 2003, providing over 5.2% of the nation's pork supply. This places Indiana 5th in the U.S. in pork production for 2003, and 6th in value at \$560 million. Carroll, Clinton, Daviess and Decatur counties in Indiana are among the top 100 pork-producing counties in the U.S.

Pork production in the state is diverse. Yearly production ranges from farms marketing 300 head per year to over 250,000 head. Indiana's pork production consists of 3,300 family farmers who are concerned with being good stewards of the land and are strong advocates of animal well being. Providing people with wholesome, nutritious, delicious and quality pork is the goal of every Indiana pork producer.

The Indiana Pork Producers Association (IPPA) conducts checkoff-funded activities for consumers and producers on behalf of Indiana's pork producers. The association has producer representation from owner-operators, contractors, employees, seed stockmen and the allied industry. For more information on Indiana's pork industry, visit the IPPA Web site at www.inpork.org, or call the association at (317) 872-7500.

Sheep and Lambs



Indiana ranks 28th in the production of sheep and lambs in the U.S. The inventory, as of January 2004, was 45,000 head. The value of production for 2003 was \$1.7 million, ranking the state 30th in the U.S. There are 1,900 sheep operations throughout Indiana.

The present Indiana Sheep Association (ISA) was originally founded as the Indiana Wool Growers Association in 1876. The ISA is one of the oldest livestock organizations in Indiana. The association concentrates on programs in the areas of producer and consumer education, as well as consumer promotion projects

that involve Indiana lamb and wool. For more information on Indiana's sheep industry, visit the ISA Web site at www.indianasheep.com or via e-mail at Executive@indianasheep.com.

Veal

Developed from a surplus of dairy by-products and low-valued dairy bull calves, today's veal industry is a valuable, high-tech segment of Indiana's livestock sector. Indiana ranks 3rd nationally in total special-fed veal calves produced among the seven primary veal producing states: Indiana, Maryland, Michigan, New York, Ohio, Pennsylvania and Wisconsin.

Indiana produced 90,000 calves in 2003 with an average weight of 400+ pounds per calf. Indiana ranks 5th nationally in total production. The state's veal industry is predominately in the northern one-third of Indiana where climate-controlled facilities are used.

A typical Indiana farm has 250 calves or more at one time, cared for by a farm family. Veal calves average \$500 to \$550 per animal at market time, which translates into a market value of \$49 million annually for the state's economy.

Office of the Commissioner of Agriculture

Programs and Services

The mission of the Office of the Commissioner of Agriculture (OCA) is *to promote Indiana agriculture, rural development and sustainable communities through partnership building.*

OCA initiatives include programs and services under the:

- Indiana Commission for Agriculture and Rural Development (ICARD),
- Indiana Grain Buyers and Warehouse Licensing Agency (IGBWL), and the
- Indiana Land Resources Council (ILRC).



ICARD

Indiana agriculture is on the brink of an exciting future in technological and economic opportunities and advances. Bio-based fuels and materials, global marketing, delivering fresh food products direct to grocers and consumers, and agri-tourism are simply the tip of the iceberg in the future of agriculture. In order for Hoosiers to continue to lead the nation in these and other areas, policy makers must give the agricultural industry their immediate attention to equip Indiana agriculture with the proper tools. The Indiana Commission for Agriculture and Rural Development (ICARD) helps make that happen!

ICARD provides public policy guidance to the governor and lieutenant governor on issues impacting the agricultural industry. The recommendations that come from ICARD provide the catalyst for positive change in Indiana's agricultural community. ICARD members represent grain production, pork and beef producers, dairy farmers, and turf production. Together, they compose a diverse group that is charged with looking at various issues in both the near and distant future of agriculture. They work to ensure that economic viability, environmental protection, operation expansion, capital and public perception are readily available and favorable to the good stewards of agriculture.

ICARD members are:

- Dennis Carnahan, Vincennes
- George Corya, Commiskey
- Wayne Dillman, Martinsville
- Richard Fellows, Nabb
- Fred Mann, Cloverdale
- David Ring, Huntingburg
- Danita Rodibaugh, Rensselaer
- Gene Schmidt, Hanna
- Om Sharma, Williamsport
- Mark Townsend, Hartford City
- Max Wilson, Kokomo
- Lt. Governor Katherine L. Davis, Commissioner of Agriculture, Chair
- Victor L. Lechtenberg, Dean of Agriculture, Purdue University, Ex-officio
- Joseph R. Pearson, Assistant Commissioner of Agriculture, Ex-officio



Questions regarding ICARD programs should be directed to Ryan West, executive director, (317) 232-8778, rwest@oca.state.in.us. Additional information on ICARD, including the *Strategic Plan for Agriculture*, may be found on the Web at www.in.gov/oca/icard.

Indiana Grain Buyers and Warehouse Licensing Agency

The mission of the IGBWLA is to reduce risk to grain producers. The agency licenses and regulates grain buyers and warehouses throughout Indiana.

During 2003-2004, the IGBWLA worked to achieve this mission by:

- Conducting 1,074 field audits. These audits included 484 companies comprising of 674 facilities with a storage capacity of 550 million bushels.
- Auditing grain companies.
- Inspecting 900 commercial moisture meters to insure fair trade in the grain industry.
- Providing staff support to the Indiana Corn Market Development Council, by statute, and to the Indiana Soybean Association, by contract, for grain promotion and market development programs.
- Participated through the Association of American Warehouse Control Officials (AAWCO) in issues of uniformity between state and federal programs including electronic commerce.
- Working with AAWCO, American Farm Bureau Federation, National Association of State Departments of Agriculture, National Grain & Feed Association and the National Farmers Union regarding a pre-emption of the state grain statute by the USDA.

Indiana Grain Indemnity Corporation

Another important program under the IGBWLA is the Indiana Grain Indemnity Corporation (IGIC). It is an insurance program established eight years ago to protect Indiana grain farmers in the event of a grain buyer's financial failure.

The fund has paid out a total of \$1.58 million to producers since 1996. That's assuring to Indiana farmers protected under the program. Producers who stored grain with or sold grain to companies and who participated in the Indiana Grain Indemnity Fund are protected for 100% of their loss on stored grain and 80% of their loss on marketing transactions.

The program was funded by producers who paid a premium of two-tenths of a percent (.002) into the fund from the receipt of grain sold. Payments ceased in 1998 when the fund reached its cap of \$10 million.

For more information on the IGBWLA or the IGIC, contact Bob Benson, director, at (317) 232-1360, via e-mail at bbenson@igbwla.state.in.us, or visit the Web site at www.in.gov/igbwla.

Indiana Land Resources Council

Working Toward a Balanced Future for Indiana's Agricultural Industry

What is the most pressing land use issue in your community? If you pose that question to your neighbors, what response will you get? It might depend on where you live or when you ask the question. The response will almost certainly touch some quality of life element and could be filled with great emotion.

Members of the Indiana Land Resources Council (ILRC) are hoping that more Indiana citizens are asking questions about land use patterns and trends. The council's goal is to increase the level of awareness about land use issues and the impact that today's decisions will have on tomorrow's Indiana. The ILRC collects information and provides educational and technical assistance, and advice to local governments regarding land use



strategies and issues across the state—helping individuals and community leaders make the connection between today’s decisions and tomorrow’s consequences.

Indiana Land Resources Council Members are:

Chair

Lt. Governor Katherine L. Davis
Commissioner of Agriculture

Academia

Dr. Eric Damian Kelly, Muncie
Professor, Urban Planning
Ball State University

County Government

David Hess, Elkhart
Elkhart County Administrator

Environment

Mary McConnell, McCordsville
State Director, Indiana Chapter,
The Nature Conservancy

Farm Owners

Bob Guernsey, Lebanon
Grain and Livestock Producer

Forestry

Samuel Smith, Borden
Director, Business Development,
Koetter Woodworking
President, Koetter & Smith, Inc.

Home Building/Land Development

P. Riely O’Connor, South Bend
President, Landsource, Inc.

Soil & Water Conservation Districts

Don Strietelmeier, Hope
Crop, Beef Cattle and Timber

Municipal Government

The Honorable Matt McKillip,
Kokomo
Mayor, City of Kokomo

Questions on Indiana Land Resources Council initiatives should be directed to Joe Tutterrow, executive director, at (317) 234-5262, or by e-mail at jtutterrow@oca.state.in.us. The council’s Web address is www.in.gov/oca/ilrc.

Other OCA Initiatives

Natural Resources and the Environment

As stewards of the land, the Indiana agriculture community is committed 365 days a year to protecting and preserving our natural resources. Whether it is clean water, wetlands, confined feeding operations, groundwater protection or Total Maximum Daily Loads (TMDLs), Hoosier farmers utilize ongoing stewardship efforts and management practices that help them contribute to clean water and air, healthy soil, improved wildlife habitat and open spaces, and a quality environment for all.

The OCA works with IDEM, the agricultural community, USDA and Purdue University to develop sound agricultural policy, and coordinate educational outreach programs on environmental issues for Indiana farmers.

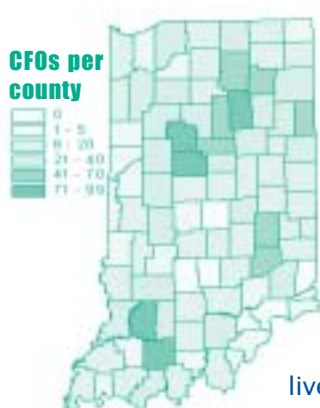
Confined Feeding Operations (CFOs)

Animal Feeding Operations Regulatory Program

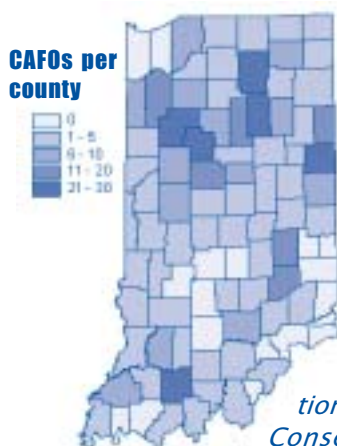
A Confined Feeding Operation (CFO) is an animal feeding operation (AFO) where at least: 300 cattle, 30,000 fowl, or 600 sheep or swine are confined for at least 45 days during any 12-month period, and ground cover or vegetation is not sustained over at least 50% of the animal confinement area.

The Indiana Department of Environmental Management (IDEM) initially adopted the Confined Feeding Control Law (IC 13-18-10) in 1971 establishing siting, construction and operational standards for CFOs. In 2002, IDEM adopted a new Water Pollution Control Board rule (327 IAC 16) to supplement the original 1971 law. Additionally in 2003, IDEM began rule development to provide a general National Pollutant

Discharge Elimination System (NPDES) permit program for Concentrated Animal Feeding Operations (CAFOs). In January 2004 the Water Pollution Control Board adopted the NPDES CAFO rule (327 IAC 15-15) that became effective in March 2004.



The maps (left) illustrate where in the state CFOs and CAFOs are located. Currently, there are 2,362 regulated AFOs in Indiana: 1,888 of these are CFOs, and 474 are CAFOs. Twenty percent of the regulated AFOs in Indiana are CAFOs, and those facilities raise 80% of the livestock in Indiana.



The CFO and CAFO regulations provide assurances that manure storage facilities are designed to be structurally sound and provide extended storage capacities of at least 180 days. The regulations also provide that land application activities must be conducted in a conservative manner, taking into account numerous factors that influence the potential for environmental impact. All regulated farms must maintain records documenting manure application activities, self-inspections and emergency spill response plans. Additionally, CAFOs also must develop *Soil Conservation Practice Plans*, implement *Storm Water Pollution Prevention Plans*, follow the *Natural Resource Conservation Practice Standard 590*, and perform increased self-monitoring.

Source: Indiana Department of Environmental Management

Clean Water Indiana Initiative

The mission of Clean Water Indiana (CWI) is to conserve and enhance Indiana's land, lakes and rivers by reducing the amount of polluted stormwater runoff that reaches the state's water resources. This is accomplished by strengthening local soil and water conservation districts' ability to provide technical, coordination and financial assistance to urban and rural landowners.

CWI is designed to identify and manage certain forms of water pollution such as:

- Crop field runoff,
- Urban development erosion, and
- Inadequate manure storage / disposal systems.

The Indiana Conservation Partnership (ICP) developed the *Clean Water Indiana* initiative to continue the viability of the state's lands, lakes and rivers. ICP members include the 92 Soil and Water Conservation Districts, Indiana Association of Soil and Water Conservation Districts, Indiana Department of Natural Resources, Purdue Cooperative Extension Service and the USDA Natural Resources Conservation Service.

For more information on CWI, contact the Indiana Department of Natural Resources Division of Soil Conservation at (317) 233-2870, or on the Web at www.in.gov/dnr/soilcons.

Groundwater and Wetlands

Groundwater is water that is found underground in cracks and spaces in soil, sand and rocks. The area where water fills these spaces is called the saturated zone. The top of this zone is called the water table. The water table may be only a foot below the ground's surface or it may be hundreds of feet down.

Groundwater is stored in—and moves slowly through—layers of soil, sand and rocks called aquifers. The speed at which groundwater flows depends on the size of the spaces in the soil or rock and how well the spaces are connected.

Groundwater is used for drinking water by more than 50% of the people in the U.S., including almost everyone who lives in rural areas. Between 60 and 72% of Indiana residents rely on groundwater for part or all of their drinking water needs. Approximately 4,200 public water supply systems and countless industries use groundwater as their source of water.

Wetlands, which cover less than 4% of Indiana, are areas saturated by surface or groundwater sufficient to support vegetation typically adapted for life in drenched soil conditions. Wetlands generally include

swamps, marshes, bogs and similar areas. Wetlands can be identified by these basic indicators: vegetation, hydrology and soils. All three characteristics must be present during some portion of the growing season for an area to be a jurisdictional wetland – a wetland protected by the Clean Water Act.

Wetlands are dynamic ecosystems. They are home to wildlife—more than one-third of America’s threatened and endangered species live only in wetlands, which means they need them to survive. Over 200 species of birds rely on wetlands for feeding, nesting, foraging and roosting. Wetlands provide areas for recreation, education and aesthetics. More than 98 million people hunt, fish, bird watch, or photograph wildlife in the U.S.



Wetland plants and soils naturally store and filter nutrients and sediments. Calm wetland waters, with their flat surface and flow characteristics, allow these materials to settle out of the water column, where plants in the wetland take up certain nutrients from the water. As a result, our lakes, rivers and streams are cleaner and our drinking water is

safer. Man-made wetlands can even be used to clean wastewater, when properly designed. Wetlands also recharge our underground aquifers.

The stated goal of a new state regulated wetlands program, passed by the 2004 Indiana General Assembly, is to promote a net gain in high quality isolated wetlands and assure that compensatory mitigation will offset the loss of isolated wetlands allowed by the permitting program. For information on IDEM’s wetlands outreach initiative, see page 44.

Total Maximum Daily Loads (TMDLs)

Despite years of pollution control based on point source discharge limits, many water bodies in Indiana and the U.S. are still not clean enough to be considered “fishable and swimmable” according to the U.S. Environmental Protection Agency (EPA).

A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an

allocation of that amount to the pollutant's sources. TMDLs are unique because they are intended to be enforceable – requiring states to take action to reduce all sources of pollution, including pollution from “point” (identifiable, stationary) sources and “nonpoint” sources (like urban street storm runoff).

Section 303(d) of the Clean Water Act requires states to identify waters that do not or are not expected to meet applicable water quality standards with federal technology-based standards alone. States are also required to develop a priority ranking for these waters taking into account the severity of the pollution and the designated uses of the waters. Once this listing and ranking of waters is completed, the states are required to develop TMDLs for these waters in order to achieve compliance with the water quality standards.



An individualized TMDL plan must be developed for each pollutant. The plan must measure the pollutant, identify the sources of that pollutant, and map a strategy for restoring that stream to state water quality standards.

For more information on these and other environmental and natural resource issues, contact Ryan West at (317) 232-8778, or via e-mail at rwest@oca.state.in.us.

Agricultural Biosecurity

Long before September 11, disaster planning has been on Indiana agriculture's radar screen. In 1999, the Indiana State Board of Animal Health (BOAH) introduced PREED, the agency's plan for *Preparedness and Response to Emergency and Emerging Diseases*. When properly followed and implemented, PREED provides a means of controlling and eradicating a foreign or emerging disease threatening Indiana's animal populations.

The Indiana General Assembly also passed a law in 2001 designed to prevent the intentional introduction of plant and animal diseases in Indiana. The law, which went into effect on July 1, 2001, makes it a class C felony to intentionally damage, destroy or sicken crops or

livestock with a weapon of mass destruction. It is punishable by up to eight years in prison.

From Europe's battle with foot-and-mouth disease (FMD), to the 9/11 terrorist attacks, and the introduction of Bovine Spongiform Encephalopathy (also known as Mad Cow disease) to North America, disaster preparedness continues to be at the forefront of planning on the state and national levels.

The Office of the Commissioner of Agriculture works closely with the BOAH, the State Emergency Management Agency (SEMA), Purdue University and the USDA to critique and expand Indiana's foreign animal disease preparedness plan.

The Indiana Counter-Terrorism and Security Council (C-TASC) was created in October 2001 by former Governor Frank O'Bannon. Lt. Governor Kathy Davis, Indiana's Commissioner of Agriculture, serves as chairman. Assistant Commissioner of Agriculture Joe Pearson serves as a member of the Council.

Team Ag partnerships make up the critical components of Indiana's agricultural biosecurity plan under C-TASC. These partners include the:

- Office of the Commissioner of Agriculture
- Indiana State Board of Animal Health (BOAH) – who also works with SEMA
- Purdue University and the Animal Disease Diagnostic Laboratory (ADDL)
- Extension Disaster Education Network (EDEN) – in Indiana EDEN is housed at Purdue
- Purdue University Plant and Pest Diagnostic Laboratory

More than 40 individuals representing 24 public and private agriculture organizations in Indiana compiled the ag security report that addresses bioterrorism threats to the industry. The group identified seven focus areas for potential agroterrorism threats. The report summarizes those threats, and provides a complete set of recommendations and findings of Indiana's Agriculture Security Task Force.

The seven focus areas in the report covered:

1. Farm animals and wildlife
2. Hazardous materials
3. Plant food, agricultural chemicals, grain, animal feeds and seed
4. Processing, transportation and facilities
5. Research facilities and initiatives
6. Sociological issues
7. Water issues

OCA Grant Programs

Four grant programs are administered through the Office of the Commissioner of Agriculture (OCA). Each grant program seeks to promote, enhance and increase the profitability of Indiana's agricultural industry. They are the:

Federal State Marketing Improvement Program (FSMIP)

The U.S. Department of Agriculture provides FSMIP matching funds to state departments of agriculture to assist in exploring new market opportunities for food and other agricultural products, or to encourage research and innovation aimed at improving the efficiency and performance of the marketing system. Non-federal matching funds or in-kind resources are required for each project accepted for FSMIP funding.

In Indiana, the OCA oversees FSMIP grants coordinating the project's objectives, setting policy and ensuring that both the federal and required state matching funds are used for approved purposes. The USDA makes approximately \$1.2 million available annually. In 2003, Indiana was awarded a \$49,000 grant



administered by the OCA in cooperation with IndianaFarmDirect.com.

The project helps the growing number of Indiana farmers marketing their products directly to consumers via farm stores, farmers' markets and the Internet. The FSMIP grant provided funds for the collection of data from the Web site on consumer buying patterns. It also allowed for the production of educational materials to inform Indiana consumers on how to purchase products directly from producers.

Data will be collected and analyzed by the Center for Information and Communication Sciences at Ball State University. Other cooperators in the program include the Center for Agriculture Science and Heritage and the Purdue University Cooperative Extension Information Service. Currently, there are approximately 30 specialty crop producers statewide utilizing the IndianaFarmDirect.com Web site.

Livestock Promotion and Development Fund

Twenty-five grants totaling \$266,905 were awarded to Indiana livestock and poultry organizations and Purdue University in 2003 through the Livestock Promotion and Development Fund. The grant program is designed to strengthen Indiana's livestock and poultry industries—

ultimately helping Hoosier producers increase demand and improve profitability.

The fund's mission is to:

- Improve the quality of livestock raised in Indiana through genetics, breeding and management education through venues such as live-stock industry shows, sales, expositions, conventions or similar events, and to
- Expand markets for Indiana's livestock producers by encouraging the development of business and industry related to livestock production, processing and distribution. Seventy-five percent of the funds awarded under section 2 are delivered to the organization at the beginning of the grant period. The remaining 25% is transferred upon submission and approval of a final project and expense reports.

Rural Rehabilitation Grant Program

OCA directs the Rural Rehabilitation Grant Program designed to provide assistance to farm youth for post secondary education or training. Over the past five years, the OCA has awarded the Indiana 4-H Foundation a \$5,000 Rural Rehabilitation Grant. These funds provide twenty \$250 youth scholarships to deserving 4-H members annually.

Value-Added Grant Program

The Value-Added Grant Program is designed to fund research and educational projects that develop new uses and demands for Indiana agricultural products, thus increasing the economic advantage these products offer. The grant program serves farmers, agribusinesses, commodity groups and applicable farm organizations. The primary recipients are educational institutions, agribusinesses and other research-oriented entities whose activities promote enhancement of the value of Indiana commodities.



Soy diesel is an excellent example of value-added agriculture.

For more information on OCA grant programs, contact Pam Robinson, budget and grants director, (317) 232-8773, or by e-mail at probinson@oca.state.in.us.

The Indiana Livestock Alliance – Partners for a Strong Industry

Indiana agricultural leaders concerned about retaining and promoting a viable livestock industry in the state created an alliance in 2003. The purpose was to publicize the value of animal agriculture and help strengthen the business climate for Hoosier livestock production and Indiana's agricultural industry.

The Indiana Livestock Alliance (ILA) is a public-private partnership comprised of livestock and crop producers, processors, allied industries, government and community leaders. The ILA mission statement and action plan addresses:

- Economic, environmental and social viability of Indiana livestock production,
- Expanded markets for livestock commodities and value-added products,
- Improved relations with constituents and consumers of Hoosier livestock production, and
- Improved relationships between livestock producers and state regulatory agencies.

For additional information on the Indiana Livestock Alliance, contact Ryan West, (317) 232-8778, or rwest@oca.state.in.us.

National Tobacco Growers Settlement Trust – Phase II

The National Tobacco Growers Settlement Trust, commonly known as “Phase II” was created as a result of the \$206 billion Master Settlement Agreement between major cigarette manufacturers and states. Here in Indiana, the Office of the Commissioner of Agriculture administers the distribution of nearly \$5 million annually from the trust to approximately 8,000 tobacco producers in 33 counties. The trust was established in a separate agreement between cigarette manufacturers and tobacco growing states to help compensate farmers for a portion of income that could be lost if the demand for tobacco declines.

Cigarette manufacturers make annual payments to the trust over a 12-year period that began in 1999 and ends in 2010. The trust is divided among tobacco growers and quota owners in 14 states including Indiana. Any grower of burley tobacco who shared in the “risk” of producing a crop and individuals who own burley tobacco quota are eligible to share in the distribution of trust fund dollars.

For more information on this program, contact Linda Gray, OCA chief of staff, at (317) 233-1572, or by e-mail at lgray@oca.state.in.us.

Indiana Dairy Industry Development Board

The Dairy Industry Development Law was passed during the 2000 session of the Indiana General Assembly. The law created the Indiana Dairy Industry Development Board (IDIDB) and established procedures for selection of board members and board operations.

The law on all milk produced in Indiana (for commercial use) established an assessment of \$0.10 per hundredweight. The monies are collected at the state level and used by the board.

Funds are used for advertising and promotion, market research, nutrition, product research and development, as well as nutrition and educational programs.

Members of the Indiana Dairy Industry Development Board are:

- George Brand, Waterloo
- Dave Byers, West Lafayette
- Donald Gurtner, Fremont
- George Jones, Indianapolis
- Merrill Kelsey, Whiteland
- Mike McClosky, Fair Oaks
- Richard Monhaut, Bremen, Chair
- Steve Rauscher, Huntingburg
- Charles Shaw, Hope
- Susan Troyer, Goshen

IDIDB advisors are: George Jones, Myrna Metzger, Anne Rady and Michael Schutz. Lt. Governor Kathy Davis serves as an ex-officio member. For additional information on the dairy board, contact Linda Gray, chief of staff, at (317) 233-1572, or by e-mail at lgray@oca.state.in.us.

Indiana Organics - A Growing Segment of Agriculture

Organic is a small but growing segment in the diverse scope of Indiana agriculture. It is an excellent value-added agricultural opportunity for producers who want to meet the growing demand for organic food products.



The Office of the Commissioner of Agriculture worked extensively with organic producers and the Indiana Organic Peer Review Panel to establish criteria regulating the certification of organic production and processing. Federal criteria were established, and are now the standard for Indiana, as well as all other states.

Organic grant projects funded through the Office of the Commissioner of Agriculture have been completed in 2003-04. The grant projects' goals were to:

- Develop the necessary infrastructure to insure that organic farmers in Indiana have a source of organic corn seed varieties that work well in Indiana soils and climates. Information is available on the OCA Web site at <http://www.in.gov/oca/grants/valueadd/OrganicSeed.pdf>.
- Create a series of educational seminars on compliance with the National Organic Regulations. Educational materials developed for those seminars are available at <http://www.in.gov/oca/grants/Organic3-24-04.pdf>.

Indiana Organic Certification and Reimbursement

In an effort to further promote organic production, Indiana participated in the USDA's National Organic Certification Cost-Share Program in 2003. The federal funds, authorized under the 2002 Farm Bill, defray the cost of organic certification for producers and handlers of organic agricultural products.

Under the cost-share program, the USDA allocated funds in proportion to the number of organic producers and handlers within each state. The states, in turn, reimburse eligible producers or handlers for up to 75% of organic certification costs, not to exceed \$500. The OCA received \$40,000 in 2003 to assist Indiana organic producers and/or handlers. The reimbursement program was implemented in April 2003 and operates through September 30, 2004.

For more information on the Organic Peer Review Panel or the certification reimbursement program, contact Pam Robinson, (317) 232-8773, probinson@oca.state.in.us, or Cissy Bowman at cvof@iquest.net.

Value-Added Agricultural Business Development

The Indiana Cooperative Development Center

The next logical and critical step in the state's value-added business development picture is an initiative that by its very name epitomizes partnerships – which is the cornerstone of Governor Kernan and Lt. Governor Davis' *Team Ag* philosophy.

The **Indiana Cooperative Development Center** will be a one-stop shopping resource for agribusiness people in the areas of market analysis, business and financial planning, facilitation, legal expertise in cooperative law, and general organizational development and assistance. The center's partners include the Office of the Commissioner of Agriculture, Indiana Rural Development Council, USDA Rural Development and Purdue University, among others.

In addition to a USDA Rural Development grant for \$175,000, the project is funded by the Office of the Commissioner of Agriculture (\$100,000) and Purdue University (\$35,000). OCA's financial contribution is possible because of increased funding to the agency's value-added grant program that was included in the 2003 *Energize Indiana* budget package.

Agri-Tourism – Another Value-Added Opportunity

Tourism in general is a huge business in Indiana. Approximately 57.7 million people drive 50 miles or more one-way to a destination in Indiana where they spend approximately \$6 billion each year. The

Hoosier agriculture industry hopes to capitalize on this growth with an expanded *agri-tourism* effort in the state.

Agri-tourism is defined as any business conducted by a farmer for the enjoyment or education of the public. Some rural agri-tourism venues may include a “farm stay” with the opportunity to assist with tasks while on vacation. Examples of successful agri-tourism enterprises include corn mazes, u-pick fruit/vegetable farms, on-farm markets,



The Joe Huber Family Restaurant, Winery and Gardens in Starlight is one of many agri-tourism venues in Indiana.

vineyards/wineries, cut-your-own Christmas tree farms, and Conner Prairie’s 1886 farm experience. The Indiana Office of the Commissioner of Agriculture and the Tourism Division of the Indiana Department of Commerce are working together on the state’s agri-tourism program.

For more information on value-added agribusiness development including

agri-tourism, contact Kathy Altman, director, at (317) 232-8765, or via e-mail at kaltman@oca.state.in.us.

Ag J.O.E. Promotes Indiana Agricultural Products Around the World

Ag J.O.E. (Agricultural Joint Office for Exports) was established in 2003 as a partnership between the OCA and the Indiana Department of Commerce Office of International Trade (OIT). *Ag J.O.E.*’s mission is to provide export support to a variety of Indiana agricultural companies. Its main services include:

- Export readiness guidance,
- Market research,
- Distributor development,
- Buyer missions,
- Trade show coordination, and
- Coordinating the Mid-America International Agri Trade Council’s (MIATCO) Branded Program allocation.

Indiana agricultural products ranging from bulk commodities to processed food, lumber and farm equipment have been successfully promoted with the assistance of this agricultural export initiative. *Ag J.O.E.* receives logistics and grant support from the USDA’s Foreign Agricultural Service, MIATCO, and the Hardwood States Marketing Group—a coalition of eight hardwood-producing states designed to promote hardwood exports.

Ag J.O.E. works in conjunction with the IDOC's OIT. The office has 13 strategic locations throughout the world. Markets in which Indiana has an OIT presence include: Australia, Brazil, Canada, Chile, China, the Eastern Mediterranean region, Europe, Japan, Korea, Mexico, Singapore, South Africa and Taiwan.

For more information on *Ag J.O.E.* initiatives, contact Andres Lelong at (317) 233-4459 or via e-mail at alelong@commerce.state.in.us.

Indiana Agriculture Resource Council (IARC)

The Indiana Agriculture Resource Council (IARC) is a coalition of 26 commodity/farm organizations and state and federal agricultural agencies. Its mission is to create an informed public with a positive image of modern agriculture.

In 2004 the IARC introduced an exciting agriculture literacy curriculum developed specifically for fourth grade students. The curriculum is correlated to Indiana Department of Education standards

for math, science, English and social studies. The new curriculum CD was sent to 2,500 public and private fourth-grade educators across the state.



The council also embarked on another rewarding project with McDonald's Restaurants in central and southern Indiana. *Indiana Agriculture* trayliners were used in 158 McDonald's restaurants in 53 central Indiana counties and 17 restaurants throughout southern Indiana. The council also worked with 74 restaurants in 19 Kentucky counties. This was a partnership with the Kentuckiana McDonalds' and the Kentucky Beef Council, Kentucky Department of Agriculture, and the Kentucky Farm Bureau Federation.

For more information on IARC activities contact the OCA, at (317) 232-8770. The IARC Web site is located at www.indag.org.

Farm Counseling Project / Agricultural Mediation Program

The Farm Counseling and Debt Restructuring Program was established in 1990. The Indiana General Assembly passed legislation in 1996 directing the Office of the Commissioner of Agriculture to administer the program.

All agricultural producers in the state of Indiana are eligible for services provided through the program, which include legal and financial counseling, as well as negotiation and advocacy services. The program

has been successful in assisting farmers with restructuring debt that allows them to maintain their farms while making debt repayment to lenders.

Another program administered by the Office of the Commissioner of Agriculture is the Agricultural Mediation Program. Certified by the USDA, this program provides assistance to farmers who have received a “non-favorable” opinion from their county USDA divisions: Farm Service Agency, Rural Development or National Resources Conservation Service. Mediation allows parties in a dispute to exchange information and to explore options toward a resolution. Educational services are provided to the farmer and informal and formal mediations are scheduled as needed between rural residents, producers, creditors and others directly affected by USDA agency decisions. Mediation is a viable alternative for Indiana farmers to help alleviate the cost and time involved in appeals and/or litigation.

For additional program information, visit the OCA Web site at www.in.gov/oca/mediation. For information on qualifications for assistance, contact one of three Rural Services of Indiana, Inc. offices in the state: South Bend, (800) 288-6581; Attica, (800) 545-2296; and Columbus, (800) 298-1612.

Indiana Fresh Fruits, Vegetables and Meats Available on the Web

Making fruits and vegetables a part of your daily diet is an essential plan for healthy living, and locating delicious Indiana fruits and vegetables is as easy as clicking on the Office of the Commissioner of Agriculture’s Web site at www.in.gov/oca/other/markets.html. There are 190 listings for:

- U-pick farms,
- Roadside stands,
- Farmers’ markets,
- Direct to consumer meats, and
- Agri-tourism venues located throughout Indiana.



Operations are listed alphabetically by county. It does not need to be downloaded. If you want a copy, simply send it to your printer, plot your course, and get ready to enjoy fresh Hoosier produce!

Honoring a Century of Farming

The Office of the Commissioner of Agriculture has recognized Indiana farm families since 1976 with the Hoosier Homestead Award. Approximately 4,500 Indiana farms have received the Hoosier Homestead certificate since the award was first presented almost 30 years ago. For more information on the program, visit the OCA Web site at www.in.gov/oca/haward or contact Dennis Henry at (317) 232-1356, or via e-mail at dhenry@igbwla.state.in.us.

Agriculture in Indiana State Government

Indiana agriculture is supported by various state agencies including the Department of Environmental Management, Department of Natural Resources, State Board of Animal Health and the State Department of Health. The following pages (44–48) contain descriptions of agency responsibilities pertaining to Indiana’s agricultural industry.

Indiana's Department of Environmental Management (IDEM)

The Indiana Department of Environmental Management (IDEM) has worked to establish a good business relationship with farmers, livestock producers, agribusinesses and fertilizer and agri-chemical dealers who comprise the agricultural community. IDEM helps them understand and comply with environmental regulations. This, in turn, helps IDEM better understand their needs.

Through the Office of Agricultural Relations, IDEM’s agricultural liaison updates the agricultural community on changes in federal and state environmental rules and regulations. The office also seeks input and gathers scientific information from the agricultural community to better shape the agency’s agricultural rules and policies. When necessary, the liaison works with individual producers to reach regulatory compliance through confidential technical assistance.

For the past few years, IDEM has focused on confined animal feeding issues in response to state statute changes, litigation and new federal rules related to the Confined Feeding Control Law (see page 31) and the federal Clean Water Act.

Another IDEM focus in 2003 was on wetlands protection. The majority of the state’s remaining wetlands are on agricultural land. Recognizing the need to address agriculture as well as protect these areas, IDEM, the Indiana Department of Natural Resources and the OCA launched a wetlands outreach initiative designed to protect endangered wetlands in a common-sense and reasonable way that meets environmental, as well as agricultural and business needs. More information is available online at www.in.gov/wetlands/.

New federal storm water rules will also have an impact on the agricultural community. IDEM will continue to work with the agricultural



community to explain the new storm water rule and to help the community comply with it.

Other areas where IDEM will work with the agricultural community in the coming months and years include:

- Coordination with EPA, USDA NRCS, and the scientific community for continuity in definitions to state and federal requirements, and to promote conservation and other Farm Bill programs to enhance surface water quality and protection,
- Composting requirements to promote the use of organic materials, and
- Development of voluntary ways to address odor and air issues related to confined feeding livestock operations.

IDEM's agricultural liaison can be reached by calling (800) 451-6027, ext. 2-8587. Information also is available on the Web at www.in.gov/idem/visitors/agliaison.html.

The Indiana Department of Natural Resources (DNR)

Among DNR's 15 divisions are four that work closely with the agricultural community. The divisions are:

- The **Division of Entomology and Plant Pathology** is responsible for the identification and control of newly introduced or not widely established insect pests and plant pathogens. The division inspects nursery stock, imported plants and apiaries.
- The **Division of Fish and Wildlife** oversees fish and wildlife management and regulations. It administers the Classified Wildlife and Wildlife Habitat Cost-Share Project to assist landowners in wildlife habitat improvement.
- The **Division of Forestry** employs professionally trained foresters who provide technical assistance relevant to forest health and productivity. The Division also manages 13 state forests that produce timber and two state nurseries that produce tree seedlings for reforestation of Indiana public and private lands. The Forestry Division administers several federal grant programs, as well as the Classified Forest Act.
- The **Division of Soil Conservation**, under the authority of the State Soil Conservation Board, oversees the administration of the Soil and Water Conservation Districts (SWCDs) in Indiana's 92 counties. The division administers Clean Water Indiana (see page 32), the state's erosion/sediment reduction and water quality program. The division also is active in providing technical, educational and financial support for the installation of various types of vegetated buffers such as filter strips, field borders and waterways that control erosion, reduce sedimentation and improve water quality.

For more information on DNR programs, call the agency at (317) 232-4020 or visit their Web site at www.in.gov/dnr.

The Indiana State Board of Animal Health (BOAH)

The BOAH maintains surveillance and enforcement over animal health laws in Indiana through programs that monitor for, control and/or eradicate significant diseases of cattle, swine, poultry, equine, deer and other major species. The BOAH licenses renderers, dealers who buy and sell livestock, dairy farms and processors, and state inspected meat and poultry processing facilities.

Since 1995, the BOAH has worked closely with the State Emergency Management Agency to develop and manage a disaster plan for animals, including weather-related, man-made and animal health emergencies. The Indiana Commission on Farm Animal Care, comprised of representatives from the animal agriculture industry to address issues relating to the care and welfare of farm animals, serves as an advisory committee to the board.

Among the key issues that topped the BOAH priority list in 2003 were:

- **Disaster Preparedness, Local Awareness and Training:** The BOAH has been working closely with SEMA and Purdue Extension since 2002 to train veterinarians, animal control personnel, emergency managers, farmers and others about preparedness for all types of disasters that may involve animals. The one-day class, *Animal Issues in Disasters*, is taught through SEMA's Public Safety Training Institute. It has provided more than 125 individuals and organizations with the knowledge and skills set to make everyone—even animals—in their communities ready for anything.
- **A State's Voice in Homeland Security:** State Veterinarian Dr. Bret Marsh spent a year participating at the national level with homeland security issues and planning related to agriculture, as a voice with a state's perspective within the USDA.
- **Meat Source Safety:** A meat source safety project is underway in Indiana, with a goal to improve the safety of our meat, from the slaughterhouse back to the farm. This project encompasses a number of issues, including assurance of humane handling of the animals, residue prevention and detection, and reduction of the number of diseased or disabled animals presented for slaughter. This project is unique to Indiana and may be used as a pilot for a similar national program in the future.
- **Premise and Animal Identification:** The BOAH has begun working with commodity and farm groups to launch a premise identification program throughout Indiana. The primary goal is to increase the

readiness of Indiana's livestock and poultry industries for any type of emergency, from animal disease breaks to natural disasters. This effort will also ensure Indiana is ready to adopt a national animal identification program currently under development by the USDA.

For more information on BOAH programs and regulatory responsibilities, contact the agency at (317) 227-0300 or by e-mail at animalhealth@boah.state.in.us. The BOAH Web site is located at www.in.gov/boah.

The Indiana State Department of Health (ISDH)

The Supplemental Nutrition Program for the Women, Infants and Children's Program (WIC) is administered by the Indiana State Department of Health and funded by the USDA. WIC provides supplemental nutrition and nutrition education to pregnant, post partum and breastfeeding women, infants and children to age five.



The Indiana WIC Farmers Market Nutrition Program (FMNP) provides WIC participants with checks to purchase locally grown, fresh fruits and vegetables at local farmers' markets. In 2003, more than 28,000 WIC participants redeemed more than \$305,000 worth of checks at 37 authorized markets. This program provides WIC participants with a means to supplement their diet with fresh, nutritious

produce to establish a lifelong behavior towards achieving the goal of "5 (servings of fruits & vegetables) a Day for Better Health." The program also benefits farmers' markets by attracting a new base of customers to the market, promoting diversification on small farms by encouraging the production of locally grown fruits and vegetables, and helping local farmers receive a greater share of the family food dollar.

The Indiana WIC Program also administers the Senior Farmers Market Nutrition Program which provides checks to low-income seniors to use at farmers' markets. In 2003, more than 2,150 seniors redeemed \$40,437 at the four pilot market sites in the state.

The Indiana State Department of Health also houses the Consumer Protection Division, which includes two areas directly related to agriculture: Food Protection and Weights & Measures:

- The Food Protection Program is divided into two different areas. The *Retail Division* provides training to local health departments, inspects food operators on state property, and provides technical assistance to consumers and businesses. The *Wholesale Division* inspects food manufacturing plants, processors, warehouses, packagers, and transporters of food products for distribution to another entity for resale or redistribution. The division also provides technical assistance to businesses.
- The Division of Weights and Measures includes the routine inspection and testing of commercial weighing and measuring devices, the investigation of consumer complaints and the training of city and county inspectors. The division provides calibration services through the Metrology Laboratory. The Motor Fuel Program, which has been part of the division since its beginning in January 1992, randomly tests octane levels at retail motor fuel outlets.

For information on ISDH programs, contact the agency at (317) 233-1325. The Web address is www.in.gov/isdh.

Agricultural Associations

The Agribusiness Council of Indiana

The Agribusiness Council of Indiana (ACI) is an umbrella organization for Indiana agribusiness groups. ACI is co-owned by members of the Indiana Grain and Feed Association (IGFA) and Indiana Plant Food and Agricultural Chemicals Association (IPFACA). Over 90% of Indiana agribusinesses belong to ACI via their membership in IGFA and IPFACA.

The mission, goals and objectives of the associations are to be the leading advocate for a growing and competitive agribusiness sector in Indiana's economy. This is achieved by meeting the needs of their members and educating members and the public on issues that affect business, and public and environmental safety.

In 2004, the ACI launches two campaigns through both member organizations:

1. Clean and Green promotes stewardship at ACI retail plants. The Office of the Indiana State Chemist and the Indiana Department of Environmental Management will assist with this initiative.
2. Be Aware . . . Be Secure focuses on homeland security. The program serves to help ACI members improve security awareness and security management practices at their retail locations.

For more information on the ACI, call toll free (866) 222-6943 or visit the council's Web site at www.inagribiz.org.

The Indiana Crop Improvement Association

The Indiana Crop Improvement Association (ICIA) is an organization directed by Hoosier seedsmen—leaders in an industry that provides high quality soybean, corn and wheat seed for farmers. The original objective of the association was to “advance the agricultural interests of the state” by teaching farmers how to grow better corn. The association’s main purpose is improving Indiana crop production through high quality seed products and providing valuable quality assurance and quality control programs for the seed, grain and related industries.

Since 1900, the ICIA has provided a wide variety of valuable services to Indiana’s agricultural industry including: seed testing, quality control consultation, custom field inspections, seed certification, educational assistance and record keeping. With these services high levels of genetic purity and seed quality can be maintained. In 1935 it was designated as the state’s official seed certifying agency, a responsibility it retains today. In addition, the organization offers Identity Preserved program services, genetics laboratory testing services and conducts applied research related to the association’s programs.

For more information on the ICIA, contact the association at (765) 523-2535 or visit their Web site at www.indianacrop.org.

The U.S. Department of Agriculture in Indiana

The U.S. Department of Agriculture (USDA) State Service Center in Indianapolis serves as the headquarters for USDA programs in Indiana.



For information on USDA programs mentioned on pages 49-51, call (317) 290-3030 and follow the voice prompts to reach each agency.

USDA Farm Service Agency

The Farm Service Agency (FSA) supports farmers through commodity programs, operating and emergency loans, conservation, domestic and overseas food assistance, and disaster pro-

grams that improve the economic stability of agriculture and the environment.

One of FSA’s greatest strengths is its grassroots delivery system of farm programs to American farmers. Eighty-one field offices located

around the state serve Hoosier producers in all 92 counties. This extensive network enables the FSA to maintain close relationships with customers and successfully address their needs.

For additional information on the Indiana State FSA office, visit their Web site located at www.fsa.usda.gov/in.

USDA Natural Resources Conservation Service

The USDA's Natural Resources Conservation Service (NRCS) works hand-in-hand with land users to conserve natural resources on private lands. They help farmers approach conservation planning and implementation with an understanding of how natural resources relate to each other and to all of us, and how our activities affect those resources.

The NRCS provides services and products to owners and managers of private lands to assist them in making wise land use decisions. The 2002 Farm Bill represents the single most significant com-

mitment of resources toward conservation on private lands in the nation's history. With the conservation provisions of the 2002 Farm Bill, private landowners benefit from a portfolio of voluntary assistance including technical assistance, cost-share, land rental and incentive payments.

Services the NRCS provides include:

- *Technical Assistance for Conservation Planning* to help customers decide what conservation practices and systems will best address natural resources concerns and meet their economic goals.
- *Technical Assistance for Application of Conservation* to help customers apply planned conservation practices and systems including designs, specifications, construction and management assistance.
- *Engineering Assistance* to help landowners and operators install grass waterways, water and sediment control basins, grade control structures, stream bank stabilization, manure storage systems, and other conservation practices to reduce soil erosion and to protect water quality.
- *Resources Information and Technology* to help landowners and operators evaluate the area's natural resources by conducting inventories and assessments to indicate status, condition and trends of



natural resources on private lands. It also includes science-based, technical tools that assure quality and consistency of conservation planning and application across the nation.

NRCS partners include: 92 Soil and Water Conservation Districts, state agencies, county governments, agricultural and environmental groups, and other federal agencies. For more information on the NRCS state office, visit their Web site at www.in.nrcs.usda.gov.

USDA Rural Development

Rural communities are the lifeblood of the American dream and the American economy. USDA Rural Development programs demonstrate this commitment through a variety of loan and grant programs designed to assist rural residents, increase economic opportunity and improve their quality of life. Rural Development program highlights include:

- Nearly 1,200 Hoosier families realized their dream of home ownership in 2003 with the assistance of \$83 million through USDA Rural Development's Single Family Housing mortgage loan programs.
- New or improved wastewater disposal service was brought to 8,300 rural residents and new or improved water service to 6,575 rural residents thanks to USDA Rural Development's investment of over \$33 million in Indiana through its community programs.
- There are over 600 apartment complexes in Indiana with 14,000 units financed through construction loans by USDA Rural Development's Multi-Family Housing loan programs. Over \$2 million was invested by USDA Rural Development in 2003 for maintenance of these projects and \$17 million was provided in rental assistance for the apartment residents.
- Economic development is a key for the survival and prosperity of rural communities. In 2003 USDA Rural Development invested \$16 million through its business program loans creating or saving over 800 rural jobs. The key role that cooperatives and value-added products can make to the profitability of rural residents was also recognized through special financing and technical assistance including a \$1 million grant to Purdue University to support the development of an Ag Innovation Center.



More information on how USDA Rural Development provides reasonable and cost effective venture capital and technical assistance for rural Indiana is available through its 20 offices statewide or at www.rurdev.usda.gov/in.

Purdue University and Agriculture

A Letter from the Dean of Agriculture

The School of Agriculture and Purdue University as a whole is committed to helping Indiana thrive in the 21st century through our research, teaching and Extension programs.

Our researchers are working to advance the food, agriculture and natural resource system through basic science. At the same time we are partnering with community leaders across Indiana to create new economy jobs and strengthen rural communities. And, we are continuing our strong programs designed to help keep Indiana's agricultural producers the most competitive in the world.



We want to ensure that Indiana's farmers have the best in agricultural technology and knowledge. We want to maintain a strong and vibrant food industry. We are looking for ways to better protect the environment and our quality of life. We also are growing in new areas such as research in comparative medicine in partnership with the Indiana University School of Medicine that will lead to new life sciences jobs in the state.

Research shows that improving the state's economy will take engaged universities, a combination of strategic private investment and government research dollars, dedicated business participation and a skilled and educated workforce.

Purdue Agriculture represents at least two of those criteria and is closely connected with the others. We are fortunate to live and work in a state where our research, teaching and Extension initiatives are welcomed, and we hope making a difference, as Indiana grows stronger.

Randy Woodson
Interim Dean of Agriculture

Agriculture Education Opportunities at Purdue University

Founded more than 120 years ago as a land-grant university, Purdue enjoys a worldwide reputation for excellence in education and research. Students enrolled in the School of Agriculture pursue degrees in academic areas within the food, agricultural and natural resource systems.

There are 11 departments in the School of Agriculture: Agricultural and Biological Engineering, Agricultural Communications, Agricultural Economics, Agronomy, Animal Sciences, Biochemistry, Botany and Plant Pathology, Entomology, Food Science, Forestry and Natural Resources, and Horticulture and Landscape Architecture. Additional programs include Agriculture Education and Natural Resource and Environmental Science. Students can choose from approximately 45 majors.

Ninety percent of Purdue Agriculture's May 2003 graduates were employed or continuing their education as of October 1, 2003. Positions were being sought by 8% of the graduates and 2% were not seeking jobs. In addition, starting salaries for all degree fields averaged \$33,993. Agricultural and food process engineering graduates reported the highest average beginning salaries of \$43,590. Food science graduates started at \$35,727, agribusiness graduates averaged \$33,272, and natural resources management grads began at \$31,734.

Vincennes University (V.U.)

V.U. is a two-year comprehensive community college in southwestern Indiana that offers associate degree programs in horticulture, agribusiness and diesel ag tech. These programs lead to employment opportunities upon completion. Another option is the cooperative agriculture program at the university. This educational tract allows a student to go two years at Vincennes and finish a bachelor's degree in two years in the School of Agriculture at Purdue.



The V.U. agriculture major will meet the basic science, math and English requirements for the Purdue School of Agriculture. The V.U. student also has the opportunity to take seven to eight Purdue agriculture classes taught by Purdue professors. All credits transfer to Purdue and count toward a bachelor's degree. The V.U. agriculture major is applicable for over 40 possible majors in Purdue's School of Agriculture.

Purdue — Our Land-Grant University

As Indiana's land-grant university, Purdue is charged with providing scientific and technical information to improve the food, fiber and feed industries, as well as to enhance the quality of life for rural and urban Indiana residents.

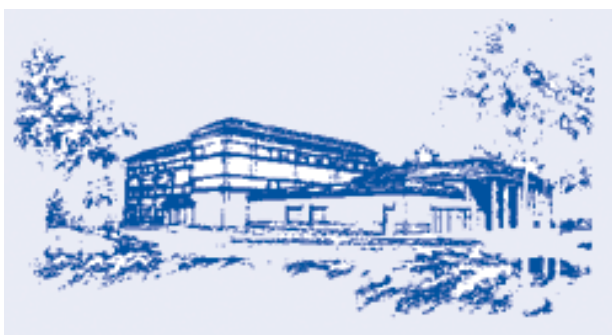
The Purdue Agriculture complex, consisting of the School of Agriculture, the Office of Agricultural Research Programs, the Purdue Cooperative Extension Service and the Office of International Programs in Agriculture, is located at the West Lafayette campus. There are additional facilities at eight regional Agricultural Research Centers located throughout the state.

Services provided include:

- Offering degrees in agriculturally related disciplines,
- Extension programs for producers, consumers and 4-H youth, and research, and
- Technology development to address agricultural and environmental problems or issues.

Some services and regulatory functions also are provided for the State of Indiana under the guidance of the Dean of the School of Agriculture. They include:

Animal Disease Diagnostic Laboratory (ADDL)



The Animal Disease Diagnostic Laboratory (ADDL) serves Hoosiers by diagnosing and developing tests for current and emerging diseases in livestock, poultry, fish, companion animals and wildlife. The ADDL provides blood testing of animals for

state or federally mandated disease programs such as brucellosis or pseudorabies.

The ADDL is under the joint jurisdiction of the Indiana State Board of Animal Health and the Purdue University board of trustees. It was physically established at Purdue in 1945. The main laboratory is located on Purdue's West Lafayette campus; a branch laboratory is located at the Southern Indiana Purdue Agricultural Center (SIPAC) in Dubois County.

The ADDL's objective is to provide accurate and prompt state-of-the-art diagnostic services to veterinary practitioners, animal producers, companion animal owners, wildlife conservationists, animal researchers and state/federal regulatory officials.

For more information on the ADDL, visit the Web site at www.addl.purdue.edu/index.htm.

Creamery License Division

This division is charged with regulating the weighing, sampling and testing of milk to ensure fairness and accuracy. Its mission is to educate milk testers and haulers on the methodology and importance of accurate qualifications of milk and milk products. The division has regulatory responsibility to investigate evidence of inaccuracy, including prosecution where necessary.

Fresh Fruit and Vegetable Inspection Program

This program is a cooperative effort with the U.S. Department of Agriculture. It is designed to provide non-biased third party evaluation of fresh fruits and vegetables for growers, processors and shippers in Indiana.

Indiana Agricultural Statistics Service (IASS)

The Indiana Agricultural Statistics Service (IASS) provides the Indiana agricultural community with meaningful, accurate and objective statistical information. Statistics are based on data collected from growers and agribusinesses through annual, quarterly, monthly and weekly surveys.

The IASS issues approximately 100 reports annually covering about 50 crops and 10 livestock items along with economic and demographic information. These reports cover all aspects of Indiana agriculture from aquaculture to farm labor. Strict security measures are taken to ensure that no one gains premature access to the information because the information collected largely affects the daily commodities markets.



INDIANA
AGRICULTURAL
STATISTICS
SERVICE

Every five years, the Census of Agriculture is conducted to generate statistics for all agricultural commodities at the county, state and national levels. In collecting data for the Census, the IASS is able to get a comprehensive view of Indiana's agricultural landscape on an individual, county-by-county basis.

The service also collects information for Purdue's School of Agriculture. This data covers everything from methods of corn rootworm control to the production of value-added crops. The data provides the basis by which experts at Purdue make deductions concerning the current state of Indiana agriculture, as well as what can be expected in the future.

Additional information on the IASS can be found on the Web at www.nass.usda.gov/in/, or by calling the agency at (765) 494-8371.

Indiana State Egg Board

The Egg Board was created in 1939 by the Indiana General Assembly to enforce the Indiana Egg Law. It is charged with the following:

- Regulating the sale and commerce of eggs sold or offered for sale at retail and wholesale outlets as fresh eggs,
- Formulating and determining standards of quality and weights of eggs sold or offered for sale as fresh,
- Issuing permits to wholesalers or retailers of fresh eggs,
- Formulating and publishing definitions, names and grades of fresh eggs and specifications for the care and handling of fresh eggs that may be offered for sale at retail and wholesale markets,
- Promulgating rules and regulations, and
- Investigating and reporting violations.

For more information on the egg board, visit its Web site at www.ansc.purdue.edu/ISEB/welcome.htm.

Office of the Indiana State Chemist and Seed Commissioner (OISC)

This OISC was established in 1881 by the Indiana General Assembly to regulate the sale and distribution of fertilizer in the state. It is now



responsible for administering and enforcing seven state laws dealing with truth-in-labeling of products, food safety, user safety, and protection of the environment.

The products and uses regulated are primarily important in production agriculture, but also of value to both rural and urban homeowners plus other residents. These laws are the:

- Indiana Commercial Feed Law,
- Indiana Commercial Fertilizer Law,
- Indiana Pesticide Registration Law,
- Indiana Seed Law,
- Legume Inoculant/Plant Growth Substances Law,
- Pesticide Use and Application Law, and the
- Agricultural Ammonia Law.

The office analyzes thousands of samples of seeds, fertilizers, feeds, and crop and health protection products each year, as well as other chemicals to assure compliance with laws and regulations. The office

conducts inspections and investigations statewide on regulated product manufacturing, distribution and use, while also responding to consumer complaints. For more information on the OISC and its programs, call (765) 494-1492, or visit the Web site at www.isco.purdue.edu.

Agricultural Extension and Research

The Cooperative Extension Service

Purdue Extension is connected to all county Extension offices by a single statewide system. This makes web-based delivery of information, programs and communications much faster than before and allows more people access to Purdue Web sites and other sites around the world.

Purdue Extension is committed to addressing the needs of urban and rural Indiana citizens and places high value on programs that:

- Address grassroots needs and build on existing knowledge levels,
- Are county-based but connect the university to the community so one can realize the benefit from current scientific information and technology,
- Build human capacity and emphasize values, ethics and character development, and
- Promote strong families, strong businesses and strong communities.



New Ventures Team

The face of Indiana agriculture is changing. Indiana producers are looking for ways to move from a commodity-based agriculture to an agriculture industry that produces a product. Both the agricultural and non-agricultural sectors are seeking ways to add value to commodities as they vertically integrate to capture a greater return on the products they produce.

In response to this need, Purdue's School of Agriculture and the Purdue Cooperative Extension Service initiated an entrepreneurial team known as New Ventures. The team is composed of campus-based Purdue Extension specialists and county-based Extension educators. The mission of the team is to educate and facilitate decision making processes that enable groups/individuals to make sound decisions to foster sustainable, value-added enterprises in Indiana's food and fiber

systems. For more information on the New Ventures Team, visit the Web site at www.agecon.purdue.edu/newventures/. To contact Purdue Extension call (888) EXT-INFO or visit the Web site at www.ces.purdue.edu/.

Agricultural Research

The Office of Agricultural Research Programs (ARP) is the research arm of Purdue's School of Agriculture, administering the funds to conduct scientific investigation and experimentation. Established in 1879 as the Indiana Agricultural Experiment Station, the ARP is part of the nationwide agricultural research system authorized by the federal Hatch Act of 1887.

The ARP is linked with other land-grant university research programs across the nation in a vital research chain to advance science and to solve problems for the food, agricultural and natural resources system. Research is conducted on the West Lafayette campus, regional Purdue Agricultural Centers and other locations throughout Indiana. More information on agricultural research is available on the division's Web site at www.agriculture.purdue.edu/arp.

The Indiana Agricultural Products Law

The Indiana Agricultural Products Law of 1975 (IC 15-4-3.5) authorized the establishment of promotional councils administered by the Dean of Agriculture at Purdue University. Producers, through a vote, created the following market development councils under this law:

Mint Market Development Council

The Mint Market Development Council was established in 1987 to conduct market development, research and education in the mint industry. Funding is provided through an assessment on each pound of mint oil produced in Indiana. Research focuses on integrated pest management and a genetic biotechnology program for varieties of mint.

The council, which supports research and development programs for mint and mint oil products, is financed by a checkoff that amounts to four cents per pound of mint oil. Under state law, Purdue's director of Agricultural Research Programs oversees the council.



Peppermint

Turkey Market Development Council

The Turkey Market Development Council was established in 1975 to conduct market development, research, education and public relations programs. This council emphasizes producer and consumer education (see page 24).

Sheep and Wool Market Development Council

The Sheep and Wool Market Development Council was established in 1989. It was funded by an assessment made on each head of sheep and each pound of wool sold in Indiana. Because of a new federal lamb promotion, research and education program, the state checkoff program for sheep and wool terminated on June 30, 2002.

Agricultural Leadership Development

Agricultural Leadership Program

Indiana's Agricultural Leadership Program (ALP) enhances the skills and knowledge of Indiana's most promising agricultural leaders. The Indiana Agricultural Leadership Institute (IALI) sponsors the ALP.



The ALP consists of an intensive two-year seminar schedule. Ten seminars are held throughout Indiana exploring social, political, cultural and economic issues. One week is spent in Washington, D.C. A two-week international travel experience allows class participants to gain an understanding of the cultural, political, social and economic similarities and differences between the U.S. and other countries. For more information on the institute and the Agricultural Leadership Program, contact the IALI at (317) 745-0947, or at ialiba@aol.com.

Youth Leadership Development

Youth leadership programs provide opportunities for the development of strong leadership and decision-making skills. FFA and 4-H, two excellent youth programs, started in rural America as a means to promote agricultural education and careers. Today, both programs reach into urban and rural areas teaching youth teamwork, self-confidence, community service and responsibility. For information on 4-H and FFA, see pages 4 and 5.

Vocational Agriculture Education

Agricultural education is offered at the secondary level in 194 high schools throughout the state. Enrollment has increased over the past four years to reach approximately 18,700 secondary students now studying agricultural science and business education.

Showcasing Agriculture

The Center for Agricultural Science & Heritage

The Center for Agricultural Science & Heritage is a not-for-profit organization with plans to develop a national agricultural education center located in Indianapolis. The center's emphasis is on the future of agriculture, using present-day as a springboard, while honoring the past for the lessons and cultural perspectives it provides.

In 2003, the center launched the farmers' market component of the campus. The market is open Saturdays, 8:30 a.m. to 12:30 p.m. May through October, at 1201 E. 38th Street, Indianapolis. It is a WIC market (see page 47).

For more information on the Center for Agricultural Science and Heritage, call (800) 259-5856, or visit the Web site at www.centerforag.com. Educators who would like to receive an educational curriculum packet should contact Justin Armstrong, educational specialist, at jarmstrong@iquest.net.

Indiana State Fair

The 2004 Indiana State Fair takes place August 11-22 and once again offers a great mix of agriculture, entertainment and wholesome family fun. After an incredibly successful 2003 fair that saw a record-breaking 878,114 visitors pass through the gates, the nation's sixth oldest state fair has a lot to live up to.



Highlighting the changes to the 2004 fair are the renovations to the 4-H education complex where \$7.5 million was invested in building improvements and landscaping. The 4-H Exhibit Hall and the new Centennial Hall (formerly the boys' dormitory) have undergone numerous upgrades that will make this the premier 4-H exhibit setting in the country.

In addition, the area immediately in front of the buildings, to be called Celebration Park, has been dramatically transformed to offer a beautiful "gateway" to the 4-H projects. The park

includes a new fountain and two 9-foot identity markers surrounding a horseshoe-shaped, pristine lawn.

Other structural improvements at the State Fairgrounds includes the completion of the Champions Pavilion renovation (formerly the Draft Horse Barn), which debuted in February 2004 and upgraded lighting, power and ventilation in the Swine Barn.

As usual, the Indiana State Fair spotlights agriculture in various ways. The recently renovated *Pioneer Village* demonstrates bygone days of life on the farm; the *Machinery Field* displays a wide variety of modern day farm machinery; *Little Hands on the Farm* teaches young children about production agriculture in a fun, interactive way; and the *Pioneer Our Land Pavilion* houses exhibits of modern farming techniques from Purdue University, the Commissioner of Agriculture and others. Farmers' Day at the fair is always the



Pioneer Village at the Indiana State Fair.

second Wednesday and includes the old-fashioned pancake breakfast, antique tractor parade, celebrity milking competition and many other events.

For more information about this year's Indiana State Fair, contact the fairgrounds at (317) 927-7524 or visit www.in.gov/statefair/. After all, *what would summer be without it?*

Special Thanks

Special thanks to the staff of the Indiana Agricultural Statistics Service, particularly Greg Preston, State Director, and Susan Reynolds, Statistical Assistant, for their assistance with crop and livestock production numbers and values. For additional statistical information on Indiana agriculture, contact the Indiana Agricultural Statistics Service at (765) 494-8371. Appreciation also goes to Purdue University, the Purdue Agricultural Communication Service, Indiana commodity and farm organizations, and state and federal agencies for assistance in preparing information for the Profile of Indiana's Agricultural Industry — 2004-2005.

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